# THE DENTAL NEWS LETTER.

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## AMERICAN DENTAL CONVENTION—FOURTH ANNUAL SESSION.

### FIRST DAY—MORNING SESSION.

Convention assembled at the Melodeon, in the city of Cincinnati, on Tuesday morning, August 3d.

Called to order by the President, Dr. Taylor, at about ten o'clock. Members present:

New Hampshire.—Dr. Frank Fuller, Portsmouth.

Vermont.—Dr. M. Tefft, West Poultney.

Connecticut.—Dr. W. Potter, Norwich.

New York.—Dr. L. W. Rodgers, Utica; Drs. W. B. Roberts, G. H. Perine, John Allen, New York City; Dr. S. F. Tremaine, Rome; Dr. H. Jameson, jr., Lyons; Dr. L. W. Sutton, Greenport, Long Island; Dr. A. Blake, Sardinia.

Massachusetts.—Dr. E. L. Childs, Pittsfield.

Pennsylvania.—Drs. Robert Vandervort, J. Westbay, W. M. Wright, Pittsburg; Drs. S. S. White, A. W. Asay, W. S. Wilkinson, Philadelphia; Dr. W. R. Greenlee, Meadville; Dr. F. J. Chandler, Rochester; Dr. J. B. Williams, Allegheny City; Dr. J. Murray, Beaver; Dr. J. McCalla, Lancaster.

Virginia.—Dr. James Johnston, Staunton; Dr. W. A. Cox, Wheeling.

Missouri.—Drs. Charles Merry, A. M. Leslie, Isaiah Forbes, S. Dunham and H. B. McKellops, St. Louis.

Georgia.—Dr. D. S. Chase, Augusta.

Mississippi.—Dr. A. Berry, Raymond.

Tennessee.—Drs. B. Wood and W. H. Morgan, Nashville; Drs. Bryan and Cole, Memphis; Dr. C. F. Winters, Jackson.

Kentucky.—Dr. J. B. Lindsay, Maysville; Dr. H. Munro, Lebanon; Drs. W. D. Stone, S. Driggs, Lexington; Dr. D. Dougherty, Bardstown; Dr. James Nourse, Cloverport; Dr. S. Tuttle, Shelbyville; Dr. J. W. Leatherman, Jeffersontown; Dr. Rogers, Shelbyville; Dr. H. McCollom, Augusta; Dr. Geo. P. Newlin, Danville;

Dr. R. Peckover, Paris; Dr. B. J. Dudley, Louisville; Dr. J. W. Grant, Lancaster; Drs. J. F. Wilson and A. L. Dwyer, Louisville; Dr. G. W. Kendall, Newport; Dr. J. H. C. Bartlett, Georgetown; Dr. D. W. Roudebush, Covington.

Illinois.—Dr. W. W. Allport, Chicago; Dr. I. B. Branch, Galena; Dr. W. P. Kingsley, Freeport; Dr. J. W. Fulton, Paris.

Michigan—Dr. P. S. Grimes, Kalamazoo; Dr. John Mansfield, Niles.

Indiana.—Dr. David Cloud, Green Castle; Dr. David Marshall, Carthage; Dr. M. H. Shadoan, Rockport; Dr. J. P. Ulrey, Rising Sun; Dr. W. R. Webster, Richmond; Dr. S. M. Goode, Madison; Dr. J. Hood, Greensburg; Dr. John Keely, Brookville; Dr. George Lupton, Shelbyville; Dr. J. F. Johnston, Indianapolis; Dr. J. U. L. Feemster, Green Castle.

Ohio.—Dr. C. Palmer, Warren; Dr. A. E. Lyman, Newton Falls; Dr. R. McDowell, Wooster; Dr. S. Brown, Piqua; Dr. Wm. B. Ingersol, Oberlin; Dr. C. M. Kelsey, Mt. Vernon; Dr. George Watt, Xenia; Dr. S. Clippenger, Bellefontaine; Dr. W. H. Atkinson, Cleveland; Dr. J. Sanford, Chillicothe; Dr. H. A. Smith, Oxford; Dr. J. F. Siddall, Oberlin; Dr. J. Bercher, Findley; Dr. J. L. Dunlap, Chillicothe; Dr. Alfred Terry, Norwalk; Dr. F. R. Rehwinkle, Chillicothe; Dr. Wm. Hall, Piqua; Dr. C. Sill, Franklin; Dr. D. F. Dyche, Lebanon; Dr. Wm. E. Dunn, Delaware; Dr. E. Conway, Dayton; Dr. G. W. Keely, Oxford; Dr. D. W. Harris, West Liberty; Drs. James Taylor, Charles Bonsall, S. L. Hamlen, B. D. Wheeler, J. Richardson, J. Taft, G. L. Van Emmen, E. W. Ruth, Jas. Erwin, Cincinnati; Dr. G. W. Barrere, Hillsboro; Dr. W. Harbaugh, Piqua; Drs. Franklin Bell and J. H. Dwyer, Greenfield; Drs. J. Cameron, J. C. Hardy, S. Wardle, R. H. Smith and E. Osmond, Cincinnati; Drs. W. B. Ludlow and H. C. Howells, Hamilton; Dr. M. De Camp, Mansfield; Dr. H. A. Smith, Oxford; Dr. A. B. Cunningham, Leesburg; Dr. Jos. Sanford, Chillicothe; Dr. C. W. Van Dyke, Mason; Dr. E. C. Sloan, Ironton.

Germany.—Dr. P. Calais, Hamburg.

The records of the last annual session of the convention, were read by the Secretary and approved.

Dr. Taft, chairman of the committee appointed last year, to prepare business for this Convention, made the following report:

I. President's Address. II. Election of Officers. III. Report of Committees. IV. Reading original Papers and Essays. V. Discussions.

1. The best means of securing good teeth. 2. The best means of

preserving the teeth. 3. Treatment of exposed nerves. 4. Mechanical Dentistry. 5. Exhibitions of Implements, etc. 6. Filling Teeth. 7. Miscellaneous.

Report adopted.

The President presented a letter from the Vice President, Dr. Tucker, of Boston, giving his reasons for being absent, and expressing his regret, that he could not be present at this Convention, which was read and ordered to be placed on file.

The President then made a short and impressive address, which was well received.

The Convention then proceeded to the election of officers. On the first ballot for President there was no choice. Second ballot, Dr. Forbes, of St. Louis, received 29 votes, Dr. Allport, of Chicago, 19. On motion of Dr. Allport, Dr. Forbes' election was then made unanimous.

Dr. Rogers then offered the following:

*Resolved*, That a Treasurer be appointed separate from the Recording Secretary, who shall, in addition to the usual duties, keep a record of the names of all the members of the Convention, and collect such assessment as may be made upon each. Adopted.

On the first and second ballot for Vice President, there was no choice. On the third ballot, Dr. Rogers received 28 votes, Dr. Allen, 25. On motion, the election of Dr. Rogers was made unanimous.

On motion,

*Resolved*, That the remaining officers be chosen, viva voce.

Dr. J. Taft, of Cincinnati, was chosen Recording Secretary. Dr. D. S. Chase, of Augusta, Ga., Corresponding Secretary. Dr. W. B. Roberts, of New York, Treasurer.

On motion, adjourned to three o'clock, P. M.

### FIRST DAY—AFTERNOON SESSION.

Convention met pursuant to adjournment. Record of morning session was read and approved.

On motion, Drs. Allport and D. S. Chase, were appointed a committee, to conduct the President elect to the chair.

On taking the chair, the President made some appropriate remarks, (for which see report of discussions.)

On motion of Dr. Wright, of Pittsburg,

*Resolved*, That the thanks of this Convention be tendered to Dr. James Taylor, our retiring President, for the able and impartial manner in which he has presided over its deliberations, as well as for his spontaneous address on retiring, which has embraced so much of interest and value to the profession; and especially, for his remarks on the history and progress of dental education, in this country, during the past thirty years.

On motion of Dr. Perine, of New York,

*Resolved*, That the thanks of this Convention be tendered to the retiring officers for the very faithful and efficient manner in which they have discharged their duties, during the past year.

On motion,

*Resolved*, That an executive committee of five be appointed by the chair, to serve during the next year.

Committee—Drs. Allport, of Chicago, Wright, of Pittsburg, Leslie, of St. Louis, Fuller, of Portsmouth, N. H., and Stone, of Lexington, Kentucky.

On motion of Dr. I. B. Branch,

*Resolved*, That the Treasurer be requested, if practicable, to procure a stenographic reporter, to serve this Convention, during its present session, and pay the same from the funds of the treasury.

On motion of Dr. J. Taylor,

*Resolved*, That in the opening of each subject for discussion, written remarks shall first be in order, and that the gentleman opening the discussion on any given subject, be permitted to close the same.

The executive committee were requested to examine the books and vouchers of the Secretary and Treasurer. After the examination they made the following report, viz:

We, your executive committee, having examined the vouchers of the Secretary for the past year, find the same correct, and report a balance remaining in the treasury, of $262 96.

W. W. Allport, A. M. Leslie,
W. M. Wright, F. Fuller,
W. D. Stone.

On motion of Dr. Wright,

*Resolved*, That when we adjourn, we adjourn to meet to-morrow morning at eight o'clock, at the lecture room of the Ohio Dental College.

The first topic for discussion, viz: "The best means of securing good teeth," was now announced by the President, and papers pertaining to it called for. Drs. Richardson and Ingersoll, read interesting papers upon the subject; after which the subject was fully and ably discussed by Drs. Atkinson, Berry, Perine, Rogers, Wright and Watt.

Adjourned to meet to-morrow morning at eight o'clock.

### WEDNESDAY MORNING, AUG. 4TH, 8 O'CLOCK.

The Convention met according to adjournment, at the lecture room of the Dental College. The minutes of the preceding session were read and adopted.

The discussion of the same subject was resumed; remarks made by Drs. Fuller, Roberts, Rehwinkle, Kelsey, Stone, Goode, Chandler, Taylor, Rogers of Cincinnati, Murray, De Camp, McKellops, Dunham and Taft.

The second topic, "The best means of preserving the teeth," was taken up, and discussed by Drs. Watt, Taft and Taylor.

Adjourned to meet at same place, at three o'clock, P. M.

### AFTERNOON SESSION.

The Convention met as by adjournment. The minutes of the morning session were read and approved.

The third topic, "Treatment of exposed nerves," was taken up, and discussed by Drs. Atkinson, Branch, Asay, Wright, Grant, Taft, Ingersoll, Johnston, Stone, Berry and others.

A dispatch was received by the President, announcing the death of Dr. C. O. Cone, of Baltimore, on the first of August.

Upon the announcement of the demise of Dr. Cone, on motion,

*Resolved*, That the Convention, as a mark of respect, do now adjourn.

Adjourned to meet same place, to-morrow, at eight o'clock.

### DENTAL COLLEGE, THURSDAY MORNING, 8 O'CLOCK.

Convention met and was called to order by the President. The minutes of the preceding session were read and approved.

Dr. Wright offered the following:

WHEREAS, It is the custom of the several railroad companies of the United States, to permit persons, passing to and from Conventions—religious and secular—upon the payment of half fare: Therefore,

*Be it Resolved*, That the Executive Committee of this body, be authorized to represent our interests to the Presidents of the various railroad companies, in the matter of the aforesaid reduction of fare, so that members of the dental profession, who may desire to attend the Convention next year, may have the benefit of such arrangement, if made.

The topic last under discussion, was resumed by Drs. Forbes and Kelsey, when the discussion on that subject was closed.

On motion of Dr. Perine,

*Resolved*, That we now decide upon the place for the next annual meeting of the Convention.

Dr. Perine suggested Buffalo, N. Y.; Dr. Taylor suggested Niagara Falls, N. Y.; Dr. Atkinson suggested Cleveland, O.

On motion, it was unanimously

*Resolved*, That when we adjourn, it be to meet on the first Tuesday of August, 1859, at Niagara Falls.

On motion of Dr. Allport,

*Resolved*, That a committee of one be appointed, to make all necessary arrangements for said meeting, and to report to the profession, previous to the meeting.

Committee—Dr. Rogers, Utica, N. Y.

Adjourned to meet at half-past two o'clock, P. M.

### AFTERNOON SESSION.

Convention met at half-past two o'clock, P. M. Minutes of the morning session read and approved.

Topic No. 4, "Mechanical Dentistry," was called up for discussion.

Dr. Fuller described, by request, his method of making partial dentures, to be retained by atmospheric pressure.

Dr. J. Allen read a paper on "Artificial Dentures," after which Dr. Roberts of New York, addressed the Convention upon the subject of continuous gum work.

On motion of Dr. Chase,

*Resolved*, That we now take up the subject of "Filling Teeth,"

Which was discussed by Drs. Atkinson, Allport, Stone, Rogers, Dunham, Branch, Tuttle, Wright, and others.

On motion of Dr. Taylor,

*Resolved*, That the discussion on filling teeth, be now closed, and that twenty minutes be appropriated to the discussion of "Local Anæsthesia."

At the expiration of which time, "Miscellaneous Subjects" were taken up.

Dr. Wright described the treatment of a case of irregularity.

By Dr. McKellops,

*Resolved*, That the Convention appoint a committee of five, to memorialize Congress, on the necessity of appointing dentists for service in the regular army. The committee to act in concert with that of the "Western Dental Society."

Committee.—Dr. James Taylor, Cincinnati, O.; Dr. George Watt, Xenia, O.; Dr. Frank Fuller, Portsmouth, N. H.; Dr. W. H. Atkinson, Cleveland, O.; Dr. Stone, Lexington, Ky.

On motion,

*Resolved*, That the Treasurer be authorized to pay the Janitor of the Ohio Dental College, ten dollars, for his services to this Convention.

Dr. Allport presented a case, in which a full set of continuous gum teeth, worn by a lady, without any peculiarity of constitution, produced a peculiar and excessive disease of the entire buccal cavity. Dr. A. asked for information upon the subject, its cause, treatment, etc.

Dr. Rehwinkle described an interesting case of necrosis of the inferior maxilla.

Dr. Osmond described a case of soldering lower sets of teeth, particularly applicable to silver cases.

Dr. Rogers of Utica, N. Y., reported a case of diseased mouth, similar to that reported by Dr. Allport, by wearing a gold plate. Was unable to give any satisfactory definition of it.

Dr. Watt presented a surgical case from Dr. Allport, for which see report of discussions.

Dr. Vandervort described his method of welding platinum, and also gave a demonstration, welding some pieces of platinum, perfectly.

Adjourned to meet to-morrow morning at 8 o'clock.

### FRIDAY MORNING, 8 O'CLOCK.

The Convention met at the College. The minutes of last meeting were read and adopted.

A paper was read by Dr. Murray of Pa., upon "Diseased Antrum;" ordered to be printed. Also, a paper was read by Dr. McCalla, on "Lateral Pressure of the Teeth, considered in relation to obscure Nervous Affection," which was requested for publication.

Cases of diseased antrum were described by Drs. Kelsey, Allen and Wright.

Case of irregularity by Dr. Wright.

A case of osseous tumor was described by Dr. Siddall of Oberlin, Ohio.

A case of protrusion of the inferior maxilla was reported by Dr. McKellops, and suggestions called for in regard to the remedy.

On motion, the discussion upon "Filling Teeth," was resumed for one hour; remarks were made by Drs. Palmer, Rogers, Fuller and Forbes.

Dr. Atkinson introduced to the Convention, Dr. Brainard, of Cleveland, who made some appropriate remarks.

Dr. Chandler described the treatment of an obstinate case of hemorrhage. Several members made remarks on hemorrhage.

The report of the Investigating Committee was read by Dr. Taft, and adopted, and the committee requested to prosecute the enterprise.

### REPORT OF THE DENTAL INVESTIGATING COMMITTEE.

Your committee would most respectfully report, That immediately after the appointment, the committee organized by selecting Dr. A. Blakesly, of Utica, N. Y., Chairman; Dr. T. L. Buckingham, of Philadelphia, Penna., Secretary; and Dr. J. Taft, of Cincinnati, Treasurer.

Your committee promptly issued some four thousand circulars, setting forth the aims and object of the enterprise briefly, and soliciting the aid and co-operation of the profession, so far as they are disposed. These were sent to all the members of the profession in the United States, so far as the committee could obtain their names and localities. Some of these were responded to encouragingly, promising co-operation, and making small remittances; all regretting that they could not now do more, and promising more in the future, if the enterprise was sustained. Many others wrote encouragingly, but acted discouragingly, or rather, we were discouraged because they did not act at all. All, however, had much to say in regard to the peculiar character of the times, financially considered, and we supposed that a much greater amount would have been appropriated, had there not been in fact, much reality in the cause assigned.

Your committee also made some effort to find some person or persons, whose services could be commanded, to conduct experiments and investigations, as contemplated in the original plan. From the inquiry made, we think there would be no difficulty to procure such a person. The committee were not fully warranted in making an engagement with any one, till the amount requisite for payment could be commanded. We think this could have been done long before this, had not the financial troubles existed. The necessity for the prosecution of the work is now just as great as it has been at any time past, and your committee is encouraged to believe, that the profession only require to know that the prosecution of the enterprise is a fixed fact, that they will sustain it. There has been pledged and paid over, $200. The expenses, some $60, have been paid out of this. Your committee request direction from this body, as to the course to be pursued in future.

J. Taft,
A. Blakesly,
T. L. Buckingham.

An instrument called "Universal Spiral Spring Drill" was exhibited to the Convention, by Dr. Merry, of St. Louis, who is the inventor. A description is given on another page. A vote of thanks was tendered to Dr. Merry. It was esteemed by all as a very valuable instrument. It was requested that instruments of this kind be manufactured, and put into the market immediately.

A resolution of thanks was extended to the members of the profession, of Cincinnati, for their hospitality, manifested to the members attending the Convention.

A resolution of thanks was also extended to the Faculty of the Ohio Dental College, for the use of their room, for its sessions.

Adjourned to meet on the 1st Tuesday of August, 1859, at Niagara Falls.

J. Taft, Secretary.

Dr. F. Fuller was appointed to report on Conway's "Dental Lamp and Furnace," and at an informal meeting, presented the following report:

*Resolved*, That the principle of Conway's patent "Lamp and Furnace," is correct, and that it may, in our opinion, be made highly valuable for dental purposes, by increasing the capacity of the furnace.
F. FULLER, *Committee.*

# FOURTH ANNUAL MEETING OF THE AMERICAN DENTAL CONVENTION.

[Reported expressly for the Dental Register.]

## GENERAL REMARKS AND DISCUSSIONS.

The fourth annual meeting of the American Dental Convention, was held in Cincinnati, the 3d, 4th, 5th and 6th days of August, 1858.

In accordance with the report of the Executive Committee, the address of the President being in order, Dr. James Taylor, of Cincinnati, the acting President, stated that, by the dispensations of Providence, he had not been able to prepare a written address, as he fully intended to do. He, however, proceeded to deliver an extempore address, which was listened to with much interest, and which he has not been able to write out for this number.

The election of officers occupying the remainder of the morning session, the Convention adjourned to three o'clock, P. M.

## FIRST DAY—AFTERNOON SESSION.

The retiring President appointed Dr. Allport, of Illinois, and Dr. Chase of Georgia, to conduct the President elect to the chair. He was introduced in a few appropriate remarks by Dr. A., and, on taking the chair, made a brief and appropriate address, of which the following is but a mere outline :

He thanked the Convention for the honor just conferred—he regarded it highly as an honor—bestowed on himself individually, but felt much more gratification in viewing it as a compliment to St. Louis, of which city he was a representative. He would make a few remarks on this Convention. It was founded by the great and good members of our glorious profession ; and one of its leading objects was to demonstrate the advantages to be derived from local associations. In this Convention each member is responsible for his own moral and professional standing—each takes the responsibility of his own remarks ; but it is not so in local associations. There the society is responsible for the moral character and professional attainments of its members. He alluded feelingly to the late sad bereavement of the retiring President who had just buried his wife.

He remarked that it would be easy to preside, if all would co-operate with him. We must consider ourselves one. I want your experience—you want mine. We can perceive each other's weak points, and give support where needed ; and we can perceive each other's strong points, and take advantage accordingly. To the beginner—the rising student—he would say, that as age advanced, and experience extended, he would find himself still a student. He advised all to be, in the strictest sense, honest—*honest*. Even if adopted from policy, honesty is profitable. The physician's patients and mistakes are often buried together; our patients live to complain, and to exhibit the evidences of our lack of skill, or want of honesty. The best operators may fail, but still he thought he could tell, by inspection, when an operation had been *honestly* performed. A new student, he said, was apt to think himself about the best dentist in existence; but after a time, he recovered from such fancies.

Essays being called for and none presented, the President announced as now in order, discussions on the general topics reported by the Executive Committee. Before discussion began, it was resolved that on each topic, written remarks be first in order. (For subjects of debate, see Minutes in this Number.)

I. *The best means of securing good teeth.*

Written remarks being called for, Prof. J. Richardson read a paper, which was followed by the reading of another by Dr. W. B. Ingersoll, of Ohio.

Dr. W. H. Atkinson remarked that this was a common-place matter, and should be better understood. He said the best means of producing a healthy person, are the best means of securing good teeth. Healthy individuals are likely to be produced only from healthy children, begotten by healthy parents, under proper circumstances. But, as it is mostly impracticable to begin so far back, we must attend to minute matters as they present themselves. The primary teeth should be carefully preserved, that the permanent may be healthy. Many of the profession, he feared, were faulty in this, and parents are extremely careless in the matter. The first permanent molars were often lost, by this want of care, as they were mistaken for primary organs, and were left to their fate. He advocated filling the primary teeth before the pulp is exposed. His experience was that when the pulp of the deciduous organ is lost, its roots are not normally absorbed, to make way for the permanent tooth.

Dr. Berry said the best way to avoid sickness, is to keep well. But in securing good teeth, many things must be attended to. We wanted good stock to begin with. The parents should be healthy—and the grand parents—as hereditary pre-dispositions often jump a generation. To be safe, the dust from which we are created, must be right. It is important, he said, to inquire if, in ordinary food, we got enough of phosphate of lime, to properly develope the teeth and bones. Unfortunately, fine flour contained but little of it. It is mostly given to the horses and hogs, in the form of bran. If we would diet as Adam and Eve did, we might do better. Beef and pork, he supposed, contain but little of it. He preferred the bill of fare published in Genesis i. 29. He would make beef-steaks of pears, plums, peaches, etc., and the bread, he would make from the grain taken "just so."

Dr. Perine said, that dental disease is not new; but it had probably increased, though he knew not why. He had tested the medicinal use of phosphate of lime in his own family, and found it satisfactory.

Dr. Rogers, of Utica, said it was not worth while to mention sound teeth as an argument against improper marriages. Stronger arguments were constantly brought to bear, yet they had no influence as long as people married according to their tastes and not their judgments. He did not believe that even well formed teeth would ordinarily last through life. He illustrated this idea by the fact that the teeth of the English are good when they come to this country, but soon degenerate, like those of the natives. It would not do to attribute bad teeth to any one cause. He had theories, but had little confidence in them.

Dr. Wright said it was difficult to determine what is practicable. He had practiced twenty years and was still at a loss. People will marry "in spite of their teeth." If he had all the match-making for two or three centuries, he thought he could raise a race with good teeth. He believed bad teeth are often inherited. He has lost the same number of teeth as his mother, and the positions of those lost, exactly correspond. He could refer to a number of similar cases. This tendency, he thought, could not be prevented. He was at a loss what to say when a parent inquired what a child should eat. He did not believe that sugar injures the teeth. He did not believe that decay of the teeth always begins externally. He thought that it was as frequently internal in its origin as external.

Dr. Watt remarked that though he differed with some who had preceded him, yet he was much gratified with the remarks offered. It was important, he said, to notice two general points. The teeth should be properly developed; and they should be properly protected during development. He did not believe in internal decay of the teeth, and thought it would not do to lose sight of the chemical view of the question. No tooth is so badly developed that it will fall to pieces spontaneously, and none so well that it can successfully resist the action of chemical agents, liable to be brought in contact with it. A well organized, solid tooth, however, would much better resist chemical action, than one otherwise constituted. It was important, then, to pay attention both to mother and child; and this he considered a *practical* question, and practiced accordingly.

### SECOND DAY—MORNING SESSION.

The first subject, the best means of securing good teeth, being continued, Dr. Frank Fuller remarked, that it was a difficult and interesting question. If we do what we can for the health of the mother, that is all we can accomplish in this direction. He could scarcely understand what was claimed for the phosphate of lime, and would hardly administer it in a state of health, even if the mother's teeth were defective. He recommended a healthy regimen. Bad teeth, he said, were not usually found among the active, laboring classes, but with those who were confined to bad air, and led artificial modes of life. But when the period of eruption arrives, much may be done. The doctrine of internal decay, as suggested yesterday, he considered altogether unsound. The diet, he said, was very important. The Irish, whose diet is principally potatoes, and who lack animal food, have very brittle teeth. He thought this evidenced a lack of earthy matter in the teeth. An intelligent German, in conversation with him, remarked that, his teeth being good when he came to America, but decaying soon after, he imputed the defect of the teeth in this country to the quality of the food used. In Germany he used hard food, which kept the teeth clean, and they remained sound; here he used soft food, and his teeth decayed. He (Dr. F.) thought the climate had less to do with the decay of the teeth, than the style of living.

Dr. Atkinson inquired if Dr. Fuller thought that the brittleness found in the teeth of the Irish, was produced by defect of earthy matter.

Dr. Fuller said that was his opinion.

Dr. Atkinson thought it arose from a defect of gelatine, and a relative excess of earthy material.

Dr. Roberts remarked, that much had been said of constitutional influence, that bad teeth are hereditary, etc. The doctrine may be true to some extent, but not so far as some might suppose. A pure African has a good constitution, but by mixture with other races, it degenerates. The population of the United States is composed of a mixture of races. These all differ in physiological characteristics. A mixture of these races causes a disproportion in the form and size of the teeth and jaws. These thoughts, however, he said were theoretical, not practical. He would not tell a lady she had married the wrong man. He would take as good care of the child's teeth as possible. Cleanliness, not of the mouth, but of the whole body, was important. He did not believe in internal decay, as suggested yesterday. The enamel being placed on the outside, indicates that the danger is from external sources. It extends only to the gum, then another substance acts as protector, and who, he inquired, ever heard of caries attacking the roots of the teeth?

Dr. Tefft, of Vermont, stated, that through his brother, a foreign missionary, he had some knowledge of the teeth of the Africans, in their native country. In their barbarous state their teeth are good; but, when introduced to civilized life, they decay. He remarked, that on the east side of Lake Champlain, the teeth are attacked with "black decay," while in western New York and Michigan, the white is the prevailing type.

Dr. Rehwinkle said, that if the health were perfect, there would be no decay of the teeth. Uncivilized nations live more in accordance with nature. Decay of the teeth was evidently a chemical decomposition. Cleanliness was very important. He thought the use of lime-water and prepared chalk, as prescribed by Dr. White, of Philadelphia, a good suggestion. The constitution of the child might be reached with advantage, sometimes, through that of the mother. He thought an excess of earthy matter rendered the teeth brittle. In Ireland, he said, inflammation of the gums is a prevalent disease. The constitution was often injured by malaria; and the fluids, being thus depraved, act injuriously on the teeth. In the malarious districts of France and Germany, he said, the teeth are not good.

Dr. Kelsey, of Mt. Vernon, remarked, that we cannot control marriage—we must, therefore, take children as we find them. The health of the mother should be carefully watched, and she should have a healthy diet; but, after all, cleanliness is the great thing. He advocated filling the primary teeth, and maintained the chemical theory of decay. Both sets of teeth should be carefully watched, and the primary should not be prematurely extracted. He would not go into the mists of the internal decay question. It belonged to the physiologist rather than the dentist.

Dr. Lyman thought the whole subject belonged specially to the dentist. If physiology does not belong to dentistry, he would inquire, what does belong to it?

Dr. Stone said that the predisposition to decay is evidently hereditary; but we could counteract the tendency. The constitution could be materially modified. He recommended friction of the gums, from the earliest infancy. His own teeth are defective, and his wife's too; yet his children, he said, have all good teeth. He referred to a case —a physician's daughter. Her teeth were sound at twelve years of age. At thirteen, there were twelve decays. She drank no water—used milk almost exclusively. Her saliva was ropy, or tenacious.

He directed her to drink water, use but little salt, *no milk*, no coffee. The ropy saliva disappeared; and the tendency to decay was corrected.

(Were the twelve decays all of the same character? And if so, what class did they belong to? Will Dr. S. please write to us?—EDS. REGISTER.)

Dr. Roberts advocated careful friction, or washing the gums in infancy. It usually prevented sore mouth, and promoted healthy dentition.

Dr. Asay considered cleanliness the important means. Early attention to the gums of infants, kept the mouth healthy, and rendered dentition easier. He recommended the use of a soft napkin, for washing and rubbing the gums. The Irish have usually white decay, after they come to this country. He thought a large per cent. of the miseries of life, is due to neglected teeth.

Dr. Branch said, that to secure good teeth, we must secure a heathy constitution. Whatever is deficient in the system, should be appropriately supplied; and the temporary teeth should be retained as long as possible.

Dr. Chandler said, that the subject is beset with difficulties, but this should only impel us onward. The diet of both mother and child, he thought very important. He remarked, that, as a rule, in the South, house-servants have bad teeth, and field-hands good ones.

Dr. Taylor said, that science had already furnished us with a few leading facts. We know that there are certain elements in the teeth, and that certain articles of diet furnish these elements. Then, different temperaments appropriate and use these elements according to their relative forces. The sanguine temperament, furnished with the same materials, would develope better teeth than the lymphatic. The temperament, however, might change, and the character of the teeth change with it. So far as the dental organs are concerned, he concluded there was nothing deleterious in our climate. The aborigines had good teeth, *even on the salt water coast*. The constitution of the mother influenced that of the child. The blood of a child from a diseased mother, is impaired. An unhealthy mother was not, he said, a suitable or successful nurse. And here a practical question arises. If we cannot impart a normal quality to the mother's milk, we can, at least, recommend that the child be supplied with a healthy nurse. He regarded the phosphate of lime, as an important remedial agent, in defects of the osseous tisues. It should be administered, in many cases, where it is deficient in the system. He spoke of its relative quantities in bran and flour, and thought the system would be better nourished by the use of the entire grain. He remarked that the constitution could often be braced up, till the structure of the teeth so improved that they could better resist disease. He remarked, that not only the character of the constitution, but even the state of the health could be ascertained by careful inspection of the teeth.

Dr. Rogers, of Cincinnati, regarded this as a most important question, and said that whatever is done, practically, to secure good teeth, must be accomplished in early life. Decay of the teeth resulted from defective enamel, or from vitiated fluids. As the enamel is all-important, our attention should be enlisted during the period of its formation; for it is not changed much after it is formed. The deleterious influence of malaria here, he observed, was similar to its influence in Germany, as described by Dr. Rehwinkle. What can be done to counteract the influence of malaria, he regarded as an important question.

Dr. Murray thought it was important to avoid mechanical injuries to the teeth. Even in early life, he said, the dental organs are used as a substitute for hammers, vices, pincers, etc. He said he was alarmed to hear that Irish teeth were bad. Being once in that country, and standing in need of teeth, he secured a deciduous set, as an experiment, which lasted him a few years. When about to leave, and being told that the teeth furnished in that country were good, he secured a *second* set, which had lasted him till the present time. He thought, that by avoiding mechanical injury, and by cleanliness, even Irish teeth would last a good while.

Dr. DeCamp remarked, that the question seems to have as many horns as Daniel's goat. An important step would be to make every mother a physiologist. The teeth, he said, are mainly developed before we have anything to do with them. It is important, he thought, to modify and improve public opinion. To carry out every process successfully, nature must have the material to work on, the tools to work with, and the ability to accomplish the work undertaken. It is our duty to inform the public on this matter; and if physicians will co-operate with us, future generations will bless us.

Dr. McKellops said, that the good teeth of foreigners seemed to be a favorite topic. He thought there was probably less difference between the dental organs of the old world and the new, than was generally supposed. In Europe, dentists are not so generally distributed as here; and, consequently, the teeth are not so closely observed. If chemistry causes the decay of the teeth, he thought it could also furnish a remedy. Why not, said he, have a chemical wash? He wished to know when gentlemen consider it proper to fill deciduous teeth? He inquired if there was not danger of injuring the permanent organ.

Dr. Dunham said, this subject belonged more appropriately to the journals, than to a popular meeting. He said most diseases are hereditary, and were less dependent on local causes, than was generally supposed. His own teeth, he said, are good, though he is a dyspeptic. His brothers and sisters have bad teeth, though they are healthy.

Dr. Wright said, that to secure a healthy permanent denture, it was necessary to retain the deciduous teeth as long as possible. He would fill them when practicable. The objection to premature extraction is, that the jaw contracts; yet, if a deciduous tooth be so diseased as to affect the constitution, he would remove it.

Dr. Allen said, we must be careful to avoid extremes. He was in favor of saving the temporary teeth by filling, when it can be done; but there was danger of injury to the permanent organs, by undue pressure. He had met with such results in his own practice.

Dr. Taft said, the remark had been made, that it was proper to retain the deciduous teeth *as long as possible.* When they are not shed at the proper time, making due allowance for constitutional differences, and if the permanent teeth do not follow them directly, he would remove them. They should be retained till the right time, and should not be permitted to become diseased. However, it was often necessary to remove them. When decayed, and he thinks it practicable, he fills them. The pressure *need* be no greater, he thought, than in mastication. Within a year or eighteen months of the period of shedding, he would not consider it proper to fill them; but, three or four years previous to shedding, the attachment is so firm that the pressure need not be dangerous. He considered it a very delicate matter to destroy the deciduous pulp. The parts around a tooth were less likely to remain healthy after the death of the pulp, especially around deciduous teeth. It was important to discriminate. In some constitutions he would not attempt the operation. Indeed, he would only occasionally destroy a deciduous pulp.

II. *The best means of preserving the teeth.*

Dr. Watt said, that good teeth being "secured," the danger to them arises from the presence of substances capable of acting chemically upon them. These substances are to be found among the acids. It is true, that mechanical injuries and other causes do very much facilitate the action of these agents; yet fracture of the enamel would be a thing of small moment, were none of these agents brought in contact with the tooth. The time was coming, and he believed it was nearly here, when the intelligent dentist would be able to tell precisely what agent produced any given case of decay. When this attainment is made, we can treat the mouth in a rational manner. It was evident, he thought, that many acids, capable of acting on the teeth, have no direct influence in producing dental decay. It was not the brief, accidental presence of acids in the mouth that causes decay, as we ordinarily see it, but the slow and prolonged action of those agents, in a diluted state. Those acids which produce dental decay, he thought, were brought in contact with the teeth by *secretion*, as when the functions of a secreting organ are depraved,—by *excretion*, as when the elements which compose them are in excess in the system, —by *fermentation* or *putrefaction*, as when particles of food are left to decompose in the mouth. All the four recognized varieties of dental caries can be produced, or at least imitated, artificially, by the use of acids. For example, "white decay" may be readily produced by nitric acid; and as yet he knew of nothing else capable of producing it. If a portion of muscular fibre be left to putrify between the teeth, ammonia is invariably formed; but, in the presence of ammonia and atmospheric air, nitric acid is always formed. White decay on approximal surfaces, was thus easily accounted for. Now, constant attention to cleanliness would remove the articles of food, and also the secreted and excreted acids; but something more, he said, was desirable. It would be well to prevent the formation of acids. He illustrated this point by allusion to a little dog, chasing away the locomotive. His watchfulness was thus far successful, as it had done no damage; but if the little fellow could tear up the track, and thus prevent its coming, the course would be more philosophical and satisfactory. [The President, by courtesy, or *oversight*, indulged Dr. W. far beyond the allotted ten minutes.—Rep.]

Dr. Berry stated, that he had been informed, on good authority, that the Japanese have usually good teeth. He exhibited a tooth-powder used by that people, which, he said, might be interesting to the curious. A powder, similar in appearance and physical properties, might be made from prepared chalk, pumice stone and rose red.

Dr. Van Emon inquired of Dr. Watt what influence galvanism had on the destruction of the teeth.

Dr. Watt said, it had no *direct* influence. It could only act on the teeth, by forming or eliminating compounds, capable of exerting an influence on them.

Dr. Taft said, that to preserve good teeth, the secretions of the mouth should be kept normal. If they become abnormal, it was important to know how to change them. To remain healthy, a tooth must be exercised. A tooth without an antagonist, we all knew, was likely to become unhealthy. The use of hard, firm food has a tendency to preserve the teeth. Dogs, he said, have no tartar on their teeth. The character of the food is not sufficiently cared for. The state of the buccal secretions, he said, had much to do with the question of cleanliness. They were sometimes so adhesive, that they attached themselves to the teeth with considerable tenacity, and were not removed except by careful brushing.

Dr. Stone requested Dr. Taylor to give his views of the use of sugar, salts, candies, etc.

Dr. Taylor said, he did not consider candy very good diet. Corn bread, he thought, was undoubtedly better. Sugar, he thought, had no bad effect on the teeth—was a useful article of food.

III. *The treatment of exposed nerves.*

### SECOND DAY—AFTERNOON SESSION.

Dr. Atkinson said, that when the nerve was accidentally exposed in operating, he applied creosote on a pledget of cotton, and pressed it, with a blunt smooth instrument, on the exposed point, continuing the pressure, in many instances, for a minute or two. He then placed a thin horn cap over the exposed part, pressed it to its place with cotton on a blunt instrument—the pressure of the atmosphere would hold it in its position. Then he would fill the cavity as usual. If the pulp was exposed when the patient first came, but not inflamed, he would pursue the same course. If inflamed, he would, if practicable, reduce the inflammation, and proceed as before. Many substances, he said, would do for caps as well as horn, but this was so easily prepared, that he preferred it. By pounding, or hammering the horn, it is divided into thin lamina, very convenient for use. Under this treatment, he said, the nerve would often be protected by a deposit of cementum. He referred to a case of exposed nerve, in which the tooth was filled, February 23d, and on the 22d of March following, the filling was removed to ascertain the condition of the tooth. The nerve was covered by cementum.

Dr. Branch said, that he filled such cases without applying creosote, or anything else. He had seen inflammation result from the use of creosote.

Dr. Asay feared he was behind the age. Three-fourths of the cases he capped, failed in less than six months. They generally inflamed. His usual practice was to destroy the nerve, and fill the fangs.

Dr. Tefft said, that his method was, to destroy the nerve with arsenic, tannin and creosote, and he did not fail more than one time in fifty.

Dr. Wright said, that when there is slight exposure, he touches the exposed point with nitric acid, and filled without capping, and in fifteen years had not lost a case. The nitric acid, he said, blackens the tooth. He had not been very successful in taking out nerves.

Dr. W. B. Ingersoll reported a case in which he performed what was, at the time, known as "the Hullihen operation." The tooth was a lateral incisor, with exposed nerve. The operation was performed five years ago, and the tooth is still healthy. He had failed in other cases. He had tried capping, but didn't like it. He now removes the nerve, unless the tooth can be filled without capping.

Dr. Stone said, his practice was to remove as much of the decay as he could, without causing severe pain, and then extirpate. He had quit capping, as he could not get teeth, treated in this way, to last over two years. He removes the nerve with an instrument, wipes out the blood, and fills in a few minutes.

Dr. Perine said, he once extirpated all nerves, but, on receiving suggestions from Dr. Atkinson, he had changed his mode. He thought it important to preserve the vitality of the tooth.

Dr. Johnson, of Indianapolis, said he applied chloride of zinc directly to the exposed nerve, repeating the application if necessary. The pain was severe. Its application, he thought, was more successful with young patients than with old. He had used the chloride in this way for two years, and had seen no discoloration of the teeth.

Dr. Fuller said, he could not get along without the chloride of zinc. It is a good antiseptic, as well as escharotic. He thought it important to fill the nerve cavity. He destroyed nerves with escharotics. He formerly used arsenic and morphine—now he omits the morphine, and finds that less pain is caused by the escharotic action. He now uses chloride of zinc, instead of creosote. In using the latter, the nerve sometimes dies, and the tooth becomes discolored.

Dr. Dunham said, he had capped and failed; and he had succeeded with various caps. The tooth could often be saved, after the nerve is destroyed, without filling the canal; but he usually fills it. Plaster of Paris, he thought, formed the best cap.

Dr. Allport said, he was not very successful in treating exposed nerves. If it was inflamed, he cut it out; if not, he tried to save it. He uses arsenic occasionally.

Dr. Rogers, of Utica, thought that if a nerve was seriously wounded, it would certainly die.

Dr. Rehwinkle thought, when a nerve was exposed, its case was almost hopeless; if suppuration had begun, it was entirely so. If inflamed, and but lately exposed, he would use astringents instead of escharotics, and insert a temporary filling. He reported successful cases treated in this way. He said (to Dr. Atkinson) that osteo-dentine is sometimes formed under such circumstances.

Dr. Branch said, that when it was necessary to extirpate the nerve, he would apply cold water, then ice-water, then a freezing mixture, and remove the nerve with an instrument. He uses no morphine in arsenical mixtures for destroying the nerves, and the result is, there is no pain. He uses a bristle instead of a broach. In the use of caps, he succeeds in three out of four cases. He had seen exposed nerves protected by a deposit of cementum.

Dr. Wright reported a case in which the pulp of a molar was wounded and bled profusely. The tooth was filled with tin, a pledget of cotton being left in the cavity. Twenty-four years afterwards, he removed the filling, the cotton was in a good state of preservation, osteo-dentine was deposited over the nerve, and the tooth was sensitive, and evidently alive. He rêfilled it successfully.

Dr. Rogers, of Utica, said, he would prefer to believe that Dr. W. had been misinformed respecting the condition of the tooth at the time it was filled. He would not say that the nerve always died in such cases, but he believed it did.

Dr. Berry said, that if he wounded the nerve, he expected it to die. He thought, however, he had seen one successful case in his practice. He extirpates the nerve with an instrument, and said that in the South they had the *nerve* to stand it.

Dr. Palmer said, that the pulp may be exposed at minute points, and the operator not be aware of it; and if a little blood be left in the cavity, suppuration and consequent pressure, would result. In such cases he applied creosote, with a burnisher, over the entire surface. If the exposure be considerable, he would moisten a pledget of cotton with creosote, and press it firmly in the cavity, for some time, then fill up tightly with cotton awhile, and afterwards fill with gold, without a cap. When the nerve is extirpated, he fills the fangs. If the nerve is freely exposed, he applies a muslin cap moistened with creosote, and fills over it. He is opposed to the use of arsenic, though, he said, he was among the first to use it. He thought morphine, combined with it, increases the pain. He now uses cobalt, which is milder.

Dr. Roberts said, he removes the nerve, when practicable, with an instrument. The operation is not as severe as patients expect it to be. When a front tooth is aching, and the nerve exposed, he removes it with an instrument, to relieve the tooth-ache, and then fills immediately. The experiment of saving exposed nerves he thought well worth a trial.

Dr. Taylor said, his practice was somewhat modified. He was in the habit of capping, more or less. He discriminated more carefully than formerly, but was in favor of capping in appropriate cases. He said it was important to know whether the decay reaches the pulp or not, before we cut down to it. If the tooth is sensitive around the border of the cavity, the nerve, he said, is not exposed. If a nerve was wounded, he formerly destroyed it; but he began to inquire why a wound of the pulp membrane should give more difficulty than cutting off the nerve and vessels in the canal. Reasoning on this, he began to cap and fill, even if the pulp were wounded, and was usually successful in favorable constitutions. If the constitution were bad, and the mouth diseased, he would not try it. He does not use morphine and arsenic to destroy nerves—uses creosote and cobalt. He inquired what should be done with a nerve that arsenic would not kill.

Dr. Chase used creosote and arsenic, applying a lead cap over it, to prevent pressure on the nerve. The result was, no pain from the action of the arsenic.

Dr. Allen said, he used creosote and arsenic, and there was no pain, unless it was caused by pressure.

Dr. Osmond said, if the pulp be wounded, there will be hemorrhage and effusion of lymph; and, in good constitutions, a deposit of osteo-dentine. In scrofulous cases, he recommended the use of hypophosphate of soda and lime, to promote the formation of this deposit. His favorite cap was prepared by folding foil to the proper thickness, and varnishing it with gutta percha dissolved in chloroform.

Dr. Ulrey inquired, if those who use arsenic ever witness bad effects from it. He thought it important to report the failures and mishaps, as well as the successes.

### THIRD DAY—MORNING SESSION.

Exposed nerves continued.

Dr. Forbes, the President, stated, that if the nerve was freshly exposed and uninjured, he would let it alone, and fill over it. If wounded, he would apply tannin and glycerine, and fill. When he cannot save the nerve alive, he extirpates it with an instrument, if he is smart enough. If the patient proved too smart for him, he destroyed it with an escharotic. He believed that was all.

Dr. Kelsey said, his patients were too "smart" to have their nerves extirpated with an instrument. When the pulp was wounded, he applied chloride of zinc and tannin, for the purpose of saving it. It was important to avoid pressure by too great expansion of the nerve. He said there were practical difficulties in extirpation by instruments, such as divergent roots, angles, etc. He was in the habit of using crude arsenic and chloroform, to destroy the vitality of the pulp.

Dr. Rogers, of Utica, suggested, that the vitality of the tooth was not lost by the death of the pulp, and that, therefore, these remarks which conveyed that impression, were unguarded or incorrect. In using arsenic to destroy the pulp, he advised coating the surface of the cavity with wax, then displacing a portion of it over the nerve, and applying the escharotic to that point. He thought the tooth was less likely to be discolored. Over the arsenic he applies plaster of Paris, when the cavity is accessible, or in such position that he can drop it in. He believed, that to fill over the nerve when it is nearly exposed, it will generally die.

Dr. Taft said, that in all that had been said on this topic, we had heard little or nothing in reference to the character of the constitution. As far as described, we would infer that all cases are alike. Now, he said, if we meet with an exposed nerve, in a constitution of low vitality, it is useless to try to save it. But, when the constitution is good, we can save a majority of the cases. In many favorable cases, he said, the nerve would be protected by a deposit of osteo-dentine. He had frequently found this to be the case, on removing fillings, to ascertain the condition of the teeth. For caps, he was in the habit of using oil-silk, horn, gutta-percha, and similar non-conductors. After a tooth was thus filled, however, it might be lost by constitutional disturbance. If the exposure was large, and the pulp healthy, he would generally proceed as above. If inflamed, he would protect it from irritating substances, and apply constitutional treatment; or, if necessary, he would resort both to local and general treatment. The vitality of a tooth, he said, was dependent both on the internal and external membrane. The vitality of the crown was lost by the destruction of the pulp. In reply to a question, he said, that when the exposure is slight, and the constitution good, nineteen in twenty cases might be saved. He based the statement on actual examination of cases, in which he had removed the fillings to ascertain the state of affairs.

IV. *Mechanical Dentistry.*

Dr. Frank Fuller, by request, described his mode of inserting partial sets, single teeth, etc., on suction plates. He cuts out the central part of the plate, after stamping partially; then, after having made it fit his cast and plaster model perfectly, he stamps another portion of plate over it, to form the chamber, and solders it. The chamber has thus a definite border, and is, at its margins, only the depth of the thickness of the first plate. (As well as we could understand him, it is made in the same manner as the Cleaveland chamber, except that no space is left between the plates.—Rep.) The square edge he considered a decided advantage. A chamber otherwise formed, he thought tended to draw an excess of the membrane into it; consequently, it soon became filled, and there was, of course, no vacuum. He remarked, that the same principle had been applied to breast pumps, and the result was, equal suction with much less pain. In forming the chamber, he thought it was important that it be not placed too far forward. When it is, the plate glides forward as it adheres.

Dr. Morgan said, that his mode was to form the chamber by striking up the plate over a lead pattern. His experience differed from that of Dr. F. in regard to square-bordered chambers. He preferred a chamber formed by swaging, to the Cleaveland chamber, or even to the modification of it practiced by Dr. F. "When the plane of the chamber looks forward," he thought the plate would run forward.

Dr. Chase said, he used the Cleaveland chamber seven or eight years, but had abandoned it. It produced irritation, and caused an excrescence on the membrane that was both unsightly and annoying. He inserts nearly all his partial jobs on suction plates. In swaging a chamber, he made its borders as square and definite as practicable. In soldering two plates together, he thought there was great danger of warping. To prevent the plate running forward, he let a little spur of the plate, having its border thickened, rest against a tooth. He had found this altogether satisfactory.

Dr. Murray said, he had seen a piece of work which had been worn some time, which gave him a prejudice against "cut out" chambers. The cavity was very deep, and was filled by an enormous fungous growth. After two weeks' treatment, with the plate out, the tumor was still quite prominent. He said, he could stamp a chamber with borders "square enough."

Dr. Allen, having been absent at the commencement of this topic, now read a paper, reviewing the subject at considerable length.

Dr. Roberts described at length his manipulations in making continuous gum work, illustrating each part of the process with specimens. He spoke also of the general properties of platinum, and of the difficulty in preparing its scraps for use. [We are unable to do even partial justice to Dr. R. on this subject; but as he has promised to write out his method for publication we can afford to wait, hoping that he will speak for himself in the next issue of the Register.—Rep.]

Dr. Vandervort said, that as to the difficulty of uniting platinum scraps, he could weld them together with no other appliances than a blow-pipe, piece of charcoal, a hammer and an anvil. Dr. V. went down to the laboratory of the College with Dr. Roberts, welded two pieces together, and returned. The welded specimen was passed round by Dr. R., and Dr. V. was requested to describe minutely his manipulations. He said, if he wished to unite a number of scraps, he rolled out the largest one quite thin, and enveloped the others in it, then heated the mass to a high heat, placed it quickly on an anvil and gave it a blow with a heavy hammer; then reheated and gave it another blow, and so on, changing its position each time. In a short time, he said, the whole mass would be thoroughly welded, and could be rolled into plate as desired.

On motion, this topic was laid aside for the time, and the subject of filling teeth was resumed. It was suggested that each member take a special cavity, and describe his mode of filling it.

Dr. Atkinson described his mode of filling the second left upper molar, the cavity being in the posterior approximal surface. He said, that if he could find a lawful excuse for extracting the third molar, he would like to have it out. But if his conscience would not let him remove it, then he would separate freely, so as to have ready access to the cavity. After removing the decay, he would form grooves or pits, as retaining points, insert and condense his gold as usual, finishing near the middle of the cavity.

Dr. Taylor inquired how Dr. A. would manipulate, if the patient had long hair all around his mouth.

Dr. Atkinson said, he would shield that below the mouth with the napkin; that above he would stick together slightly with gum mucilage, and lay it on one side. He said he often used the mallet in condensing the gold, and maintained that less violence was necessary by this mode than by any other. It was important, he said, to go over the gold but once with the condensing instrument, as otherwise, the next piece would not adhere so readily. When the gold is sufficiently condensed, the mallet rebounds from the instrument.

Dr. Allport selected an anterior approximal cavity in the left lateral incisor. He would separate by wedging, if practicable. Even if the patient were not young, he would resort to this mode, if other circumstances were favorable. If necessary, however, he would file; he would obtain space sufficient to enable him to reach every point of the cavity. For the cavity under consideration, he would use very fine-pointed pluggers. He would insert a piece of wood between the necks of the teeth, to keep the upper portion of the cavity dry. The great danger of defect was next the gum; and, to obviate this, he would insert a large cylinder at this point, and press it firmly into place with a flat, smooth instrument, leaving a portion of the cylinder projecting from the cavity. Then he would add, successively, soft cylinders, till but a small portion of the cavity next the cutting edge is left. This he would fill with crystal gold, or adhesive foil, and but little pressure would be required to render it efficient. He did not say that this would make a *perfectly solid* filling. He did not believe that could be done. He had heard of fillings as solid as molten gold, but he never expected to see any; and fortunately such fillings were not necessary. The tooth could be preserved by one much short of solid gold. He had seen at this meeting a fine-looking filling, which was perfectly preserving the tooth, which had been inserted by a very distinguished operator, and was yet so soft that it could be pierced by a pointed instrument. He said, that while he was up, he would make a remark on the discoloration of crystal gold and "crystal gold foil." Much had been said in regard to the former changing color; and the charge of impurity had been brought against the latter. The latter, however, was subject to the same change; and he believed that with both, the fault was not in the material, but in the manipulation. The usual instructions for filling with crystal gold, directed us to begin at the bottom of the cavity, and condense towards the sides, manipulating so as to keep the surface of the filling concave. This, he thought, was incorrect practice. When the surface was concave, he said, that when pressure was made on a piece of gold, in adapting itself to the concavity, it is drawn away from the walls of the cavity. The result is, the filling does not fit tightly to the walls of the cavity, foreign agents are admitted, and discoloration ensues. His mode was to have the filling convex as he progresses, to keep the plug the fullest in the centre. By this mode, he maintained that the tendency of the gold under pressure would be towards the walls of the cavity. And even when the pressure was directly on the centre, it would be like pressure on the keystone of an arch, tending to force the extremes of the arch farther from each other, and consequently more firmly against the walls.

Dr. Stone selected, by request, a posterior approximal cavity in a lower bicuspid. He would make a V shaped separation, leaving a shoulder to prevent the teeth closing together. He would leave no sharp edges to the filed surface. Having prepared his cavity, he would wedge away the gum with a piece of wood between the necks of the teeth, then dry the cavity with "boiled cotton," and introduce the gold. The part of the cavity next the neck of the tooth, and that next the indentation, are the points to be most closely watched. He uses for this cavity pluggers bent to about forty-five degrees, and would use about three of them, one being flat, to condense next the gum, after the gold is introduced. He uses blocks, or pellets, prepared from loosely folded strips, begins at the bottom of the cavity—the wall next the gum—and finishes near the middle, piercing the plug, or even drilling into it, to introduce the last piece. He would then file off the surface, and condense farther; file again, and again condense, and then finish as usual. In reply to a question, he said, he did not believe it was necessary to have all the moisture out of the cavity.

### THIRD DAY—AFTERNOON SESSION.

Filling teeth continued.

Dr. Perine described his manipulations in filling a right superior bicuspid, the pulp dead and the tooth badly broken down. He endeavored to restore the shape of the tooth, and succeeded by preparing the canal, inserting a gold wire into it, leaving it to project, so as to strengthen and retain the filling, as it was built out from the remaining wall. He spent the entire day on the tooth. He said it was difficult to control the saliva in prolonged operations, and remarked that he sometimes gave the patient a saucer, telling them to use it in case of overflow. The result was that there was seldom any overflow. The anxiety being lessened, the salivary glands did not act so freely.

Dr. Rogers, of Utica, described and recommended an instrument for condensing plugs, after all the gold is introduced. He called it a "serrated burnisher," and said it was made by polishing a serrated, or grooved instrument with a brush, and its advantage was, that it condenses the gold without cutting it. The pressure is applied with a kind of "rolling motion." He also suggested the propriety of filling deep cavities partly full of some *non-metallic* substance, before using the gold. It was necessary, he said, to study economy with some patients, and if some indestructible, non-metallic substance could be used, without risk to the tooth, an important point was gained. He had tried two metals in the same tooth, supposing that, if the moisture of the mouth were excluded, no galvanic action would ensue, but he found he was mistaken.

Dr. Stone said that Dr. Talbert, of Lexington, had experimented in this method, and was successful thus far.

Dr. Dunham thought, that many teeth might be saved by filling deep cavities partly full of some soft material. He reported a case in which osteo-dentine was formed under gutta perch. In small towns especially, some cheap mode is very desirable, if effectual. He thought plaster of Paris a convenient and valuable material to place in the bottom of a deep cavity for this purpose.

Dr. Branch said, he uses plaster mixed with slaked lime made from marble, for the bottom of the cavity, and fills over it with gold. He uses the mixture to preserve the color of the tooth, and as a non-conductor.

Dr. Tuttle said, that in filling the nerve cavity of a front tooth, he would drill through its lingual surface, and fill with the same instruments he would use for a small cavity. He uses serrated points, deep cut, if the instrument be large; not so deep, if small.

[At this point, Mr. Mussey, of the *Cincinnati Gazette*, by request of Dr. Bonsall, announced to the Convention, that the *Niagara was in Trinity Bay with her end of the Atlantic cable, and that she was in perfect connection with the Agamemnon.* As one man, the members arose to their feet and gave, spontaneously, three hearty, vociferous cheers. Mr. M. then announced that the exact locality of the Agamemnon was not yet known. A member shouted: "Three cheers for our side, any how!" These were given with a will; and, with happy countenances, the members quieted down to business.]

Dr. Wright said, in regard to the use of plaster in the bottom of deep cavities, it should be known that the plaster can be rendered no harder by the addition of other materials to it. If rendered anhydrous by calcination, he said it would be harder.

Dr. Berry thought if any experiments were tried in this direction, the French plaster should be used, as it is much harder than that in common use.

Dr. Taylor says, that good fillings can be made in various ways. If he found an operator making good fillings by any one mode of manipulating, he was not anxious to have him change it for another. By request, he described his method of filling a posterior approximal cavity in a lower molar. He would cut away the tooth until he could see the entire cavity. He must have perfect room to work. He often cut away one-third of the grinding surface of the tooth, so that the tongue could displace any food that might lodge in the space. He would form the base of the cavity—the wall next the gum—into an inclined plane, then he would cut under the corners, at the upper portion of the cavity, to form retaining points. He would prepare his gold in blocks, or cylinders, using gold sufficiently adhesive to prevent its unrolling. The first block he would have large enough to extend across the entire base, and a little outside of the cavity. Having prepared his blocks of various shapes and sizes, with some formed into cones for finishing with, he would take the first block, and with a flat instrument, press it firmly against the base of the cavity, and, if large enough, it would stay there. Then he would add block after block, selecting shorter ones as he approached the upper portion of the cavity, condensing each block thoroughly as he put it in. If well condensed, they need not project much beyond the cavity. He had nothing peculiar in his mode of finishing. Being requested to make some remarks on filling the fangs of the upper molars, he said he wanted every part of the nerve removed: and his method of obtaining this, was to drill through the centre of the crown, and freely expose the pulp cavity, and then take out the nerve with broaches. He thought young operators often failed by not freely opening the cavity. They were too fearful of cutting away the tooth.

Dr. Lindsay said, he was opposed to wedging the teeth to separate them. There was danger of elongation, or protrusion from the socket resulting from it. He was in the habit of filing freely; and he never leaves a square shoulder. The farther back in the mouth the larger the V should be made in separating.

Twenty minutes, being, on motion, assigned to the consideration of local anæsthesia,

Dr. Branch said, that in the subject of local anæsthesia by congelation, he was less interested than the profession. (Dr. B. is the patentee of an instrument for congealing the gums for the purpose of extracting teeth without pain.—Rep.) He said this application had many advantages. It was harmless. There might be, he said, cases in which it would do harm, but he could think of no condition in which it would be injurious. As a remedial measure, he said its usefulness extended far beyond the extraction of teeth. It relieved sensitive dentine, periostitis, inflammation of the gums, and kindred pathological conditions. He exhibited the instrument, and described minutely the method of using it. He said he would like to hear the result of Dr. Taylor's experience in the use of it.

Dr. Taylor said, his experience had not been uniform. Sometimes it acted pleasantly—other times not.

Dr. Tefft exhibited a liquid which he used locally to destroy sensibility and prevent the pain of extraction. He moistens two pledgets of cotton with the liquid and applies them to the gums, for a minute or two, over the tooth to be extracted. He said he had been offered fifteen hundred dollars for the formula, which was no patent, and which he now gave freely to the profession. The recipe is as follows:

Take, Tincture of Aconite,
Chloroform, Alcohol, each, an ounce,
Morphine, six grains. Mix.

Dr. Roberts said, he had extracted some two hundred teeth, with the use of the galvano-electric current. The results varied somewhat, but the patients generally claimed that there was less pain.

Dr. Dunn said, that a lady, now in Delaware, O., had her teeth extracted *two years ago*, under the influence of electricity, as directed under the late patent. She was well pleased with the operation, and said there was little or no pain.

Dr. Berry said, that good old brandy was a first-rate anæsthetic. He had seen it used with good success.

VII. *Miscellaneous Business.*

Dr. Wright exhibited a plaster model of an upper denture which he treated for irregularity. It was a complex case, and was successfully treated; but without cuts we cannot make it very intelligible to the reader.

Dr. Allport exhibited a set of continuous gum work, on platinum, which had seriously affected the patient's health; producing severe inflammation of the mouth and neighboring parts, which, he maintained, was not caused by mechanical pressure or irritation, as the patient had previously worn silver plates, and now wears gold ones, with impunity. The gum materials were from the same parcels which he used both before and since the occurrence referred to without any bad effects. He wished for light on the subject.

Dr. Rogers reported a case in which similar results followed the use of a gold plate. He thought the quality of the plate had nothing to do with the difficulty.

Dr. Watt mentioned a case in which a small twenty carat gold plate produced severe nausea and vomiting—the nausea continuing through a period of some months, as regularly as the plate was worn. The patient was a physician, and was resolved to overcome the difficulty by perseverance. He had not heard for a few weeks how he was succeeding.

Dr. Dunn exhibited specimens of porcelain work according to Loomis' patent, which he thought had decided advantages over all other styles of work. He maintained that it was cleanlier, stronger, more natural in appearance, easier made, and every way more efficient than other styles.

Dr. Rehwinkle described a case of necrosis of the inferior maxilla, which occurred in his practice. He removed the dead bone, and the teeth it contained. These he exhibited to the Convention, and then presented them to the Ohio College. Altogether it was an interesting case.

Dr. Conway made some remarks on his dental lamp. This lamp is patented by Dr. C., and is intended to answer all the purposes for which heat is required in the dental laboratory. Dr. C. exhibited its powers and uses, at various times, in the laboratory of the College, during the sitting of the Convention.

Dr. Osmond described a method of soldering lower sets, which he had not tested on gold plates, but which was very satisfactory with silver. Owing to the low tones of Dr. O., and some confusion where we sat, we are unable to give his method.

Dr. Allport exhibited an appliance, which was successful after other means failed, in retaining a fractured lower maxilla in proper position. In this case the general surgeon recognized the dental surgeon as his professional brother, applied to him, and received just that assistance which he needed. [A full report of this case is about being published in the Chicago *Medical Journal*, and it will be laid before the readers of the Register at the earliest opportunity.—Rep.]

Dr. Wilson reported a case in which the first bicuspid made its appearance through the cheek, near the mental foramen. It was natural in form and appearance—normal in all respects, except position. He found it quite difficult to extract. The patient's jaw had been fractured in early life.

Dr. Lupton said he put an amalgam filling in a tooth that was badly decayed; and to prevent the amalgam's showing through the enamel, he laid a portion of gold foil against the anterior wall of the cavity, and put the cement in behind it. The patient, he said, complained of a peculiar sensation about the tooth, especially when the tongue touched it, and he wished to know why. A member responded that he had simply erected a "thunder mill" in the tooth.

### FOURTH DAY—MORNING SESSION.

Dr. Murray read a paper on diseased antrum, and detailed his treatment of a complicated case.

Dr. Allen reported a similar case less marked.

Dr. Kelsey reported three cases in his practice, all successfully treated. After opening the cavity through the socket of the second molar, he injected warm water, followed by a "solution of zinc." Otherwise there was nothing peculiar in his treatment. The cases terminated favorably.

Dr. Perine reported a case of diseased antrum which seriously affected the sight. The molars on each side were filled with amalgam. He removed these and the patient recovered.

Dr. Wright reported a complicated case of diseased antrum, in a scrofulous patient, which terminated fatally. Also a case of irregularity, in which the lower teeth shut outside of the upper ones. He remarked that when contraction of the jaw takes place from premature extraction, the front teeth go backward, not the back ones forward. [A number of cases were reported, and specimens presented, which were highly interesting to the members, but which cannot be described in print to give satisfaction.—Rep.]

Dr. McCalla read a paper on lateral pressure of the teeth.

Dr. McKellops reported a case of protrusion of the lower jaw, which he was correcting by the use of the "Fox bandage," as described in Harris' Principles and Practice.

On motion, one hour was devoted to the subject of filling teeth.

Dr. Palmer described his method of filling an approximal cavity in a front tooth. He separates so as to fill from the lingual surface of the teeth. He discriminates in regard to the different methods of separating. If the necks of the teeth are narrow, he wedges. He makes the cavity triangular, with the apex downward; and in inserting the filling, he finishes at the apex. He polishes the filed surface with pumice, and then with rotten stone.

Dr. Rogers described a file, shaped like a knife blade, which cuts by drawing instead of pushing. With this, he said, it was easy to separate posteriorly, without filing the labial surfaces to any extent.

Dr. Fuller said his old method of filling, was, to begin with soft cylinders, prepared according to the dimensions of the cavity, and finish with hard ones. A cylindrical cavity, he thought, was better filled with non-adhesive, than with adhesive gold. When he resorts to the adhesive style, he uses Watt's & Co.'s "Crystal Gold Foil." He makes a groove, or pits, at about the junction of the dentine with the enamel.

If the cavity is large he inserts a large pellet, using smaller ones as he progresses. When he gets to the groove, he forces the gold into it, and welds it to the mass in the bottom of the cavity. He controls the sublingual ducts by placing a roll of napkin beneath the tongue, and the parotid by bibulous paper. He inserts a wedge of wood, or piece of rubber, between the necks of the teeth, to keep the border of the cavity next the gum, dry.

Dr. Forbes, by request, described his method of preparing cavities. For central cavities in the upper molars and bicuspids, he uses a straight gouge, beveled from the inner side. With this he cuts down the sides of the cavities, as a mechanic would the sides of a mortice with a paring chisel. For similar cavities in the lower teeth, he has his gouge bent at right angles; for approximal cavities, he uses four gouges, bent at right angles, and the edges facing four different ways. For following the seams in the grinding surfaces, he uses a V shaped gouge. He stated, that files cut at an angle of sixty or seventy degrees, would separate the teeth with less pain and jarring—are pleasanter both to patient and operator. He uses "water stone" to sharpen his instruments; oil stones, he said, were a filthy institution.

Miscellaneous business being again in order,

Dr. Chandler made some remarks on hemorrhage of the gums, and his treatment of the same. He reported a severe case of hemorrhage, resulting from lancing the gum around an incisor tooth, to relieve pain. The ordinary astringent applications were used without effect; but a free use of ice water to the head and neck worked like magic. It was instantly arrested, and was not renewed. This case occurred in 1840 or 1841; and since that, he had resorted to the same course in all obstinate cases, and had found it satisfactory. His theory was, that the cold caused contraction of the muscular coat of the arteries, and prevented the accumulation of blood about the head.

Dr. Tuttle said, that as a compress, in suppressing hemorrhage after extraction, he uses dry sponge, firmly compressed.

Dr. Rogers, of Utica, said, that pressure was much more reliable than styptics.

Dr. Watt said, that the two were easily combined; and in using styptics it was important to make the proper selection. He referred to a case of hemorrhage which occurred in the mouth of a prominent medical teacher. The patient applied pressure and sulphate of copper, and the hemorrhage was arrested only a few minutes at a time The use of tannin, with no more efficient pressure, made at once a permanent arrest. The reason of this may be found in the fact, that the salts formed by a union of albumen with the metallic sulphates, nitrates, etc., is soluble in an excess of albumen. Consequently, the coagulum would be dissolved as the flow of blood continued against it. But when the tannic acid is used, the tannate of albumen is formed, which is not soluble in any constituent of the blood.

Dr. Osmond said, it was important, in obedience to the laws of hydraulic pressure, to apply the styptics and pressure directly on the mouth of the bleeding vessel. By observing this, he would not despair of any case.

Dr. Atkinson remarked, that two deaths had occurred in Cleaveland, from hemorrhage of the gums during dentition. He spoke favorably of tartaric acid as a styptic.

Dr. Charles Merry, of St. Louis, exhibited an improved drill stock, which was greatly admired by all present.

After a vote of thanks to the profession in Cincinnati for the entertainment and carriage excursion, and to the faculty of the Ohio College, for the use of its halls, the Convention adjourned.

[In this report we have endeavored to retain all the practical and scientific points presented, without much regard to the exact language of the speaker. As in all popular meetings of the profession, much was said that was mere common place, by way of getting an introduction to that which was more rare and important. For instance, a member would rise—a first rate fellow, too, but a little bashful—and, by way of collecting his thoughts, would tell us he had never been at such a place before; would tell us where and when he began practice; why he turned his attention to the profession, etc. Now, we suppose, no one expected such remarks to be reported; and we have, accordingly, omitted the *preface*, and have endeavored to give the *body of the work*. We have omitted the "applause," "laughter," etc., and also the flashes of wit—we were after the *science*—but the reader may applaud and laugh as often and as heartily as he pleases, and will probably still fall short of the Convention's efforts in this respect. We have not attempted to report the sayings and doings at the *supper*, as they were, as they should be, far more social than scientific. Below we give the toasts or sentiments offered and responded to.—Rep.]

## THE BANQUET—REGULAR AND VOLUNTEER TOASTS.

*The American Dental Convention.*—Responded to by the President, Dr. Isaiah Forbes, of St. Louis.

*The Medical Profession*: Ever zealous in the cause of science, we welcome this night to our festive boards; and as fellow-soldiers in the great battle with disease, we extend them a cordial greeting.—Responded to by Professor L. M. Lawson, M. D., of the Medical College of Ohio.

*Our brethren of the East.*—Response by Dr. John Allen, of New York, formerly of Cincinnati.

*Our brethren of the South.*—Responses by Dr. Chase, of Georgia, and Dr. Berry, of Mississippi.

*Our brethren of the North.*—Response by Dr. Atkinson, of Cleaveland.

*Our brethren of the West.*—Responded to by Dr. Allport, of Chicago.

Volunteer Sentiments:

*The land of Dudley:* Though represented by a STONE, it proves to have been wrought into a highly-finished Corinthian Capitol.—Response by Dr. Stone, of Kentucky.

*The Granite State:* At each successive meeting, may its representation still be FULLER.—Responded to by Dr. Fuller, of New Hampshire, who closed by offering the following:

*The Faculty of the Ohio College of Dental Surgery:* In the ripe wisdom of a TAYLOR, the brilliancy and energy of a TAFT and a SMITH, the solid and substantial acquirements of a WATT, a RICHARDSON and a CHAPMAN—in the untiring devotion of each and all to their arduous profession, let us discover those qualities of mind and heart, which, while we admire, we should deem it our highest duty to imitate.—Response by Dr. Taft.

*The true professional man:* Always sought—never seeking—sustained alone by his own merit; may his reward be equal to his disinterestedness, and may it be our ambition to emulate his example.—Response by Dr. Watt.

*The Press.*—Responded to by J. D. Caldwell, of the Cincinnati *Gazette.*

By Dr. Frank Fuller:—

*The Atlantic Telegraph:* Uniting, this day, with its electric chain, two mighty nations of the earth, may no message of war ever thrill along its nerves, but may its utterance ever be "*Peace on earth—good will to man.*"

With the band playing "The Star Spangled Banner," the banquet closed.—*Dental Register of the West.*

[From the Quincy Whig and Republican.]

## MEETING OF THE WESTERN DENTAL SOCIETY.

The above named Society met in this city, on Tuesday morning, the 20th of July, at 11 o'clock, in Lomelino's Hall. The President, Dr. Isaiah Forbes, of St. Louis, in the chair. The Society was called to order, and a portion of the session was occupied in reading and correcting minutes of previous meeting, and examination of candidates for membership; after which, the Society proceeded to the election of officers for the ensuing year.

Dr. W. W. Allport, of Chicago, Ill., was elected President; Dr. I. B. Branch, of Galena, Ill., 1st Vice-President; Dr. W. H. Anderson, Hannibal, Mo., 2d Vice-President; Dr. I. Forbes, St. Louis, Mo., Recording Secretary; Dr. H. T. Peebles, St. Louis, Mo., Corresponding Secretary; Dr. A. Blake, Treasurer; Drs. Spalding, McKellops, Forbes, Priest and Hubbard, Ex. Committee.

Meeting adjourned until 2 o'clock, P. M.

TWO O'CLOCK, P. M.—Called to order by President Forbes.

The President, elect, after being conducted to the chair, said:

GENTLEMEN:—For the honor done me in selecting me as your presiding officer, I return you my sincere thanks. It is now three years since the "Western Dental Society" was first organized, and this is its fourth meeting. Whatever of good it may have accomplished towards the advancement of dental science, and the making of our profession one of dignity, usefulness and honor, certain it is that not the least among its useful results is the better acquaintance and consequent good fellowship of its members with each other.

You will agree with me when I say that this Society has drawn together the better portion of our profession in the West—men who, by effort and example, have contributed much to the advancement of dental knowledge, and in whom a spirit of emulation and industry has been incited, which promises much for the future. A spirit of rivalry alike laudable and honorable, which does equal credit to the head and heart.

At the time of the formation of this Society, the expediency of the movement was doubted by many, and its promised usefulness was questioned—but the results that have followed, and which we witness to-day in the numbers present, and the interest manifested, must, I am sure, set at rest the question of expediency in this matter. The "Western Dental Society" has to-day a *living* existence, which, I trust, will not soon die out.

I again thank you, gentlemen, for the honor you have seen fit to confer upon me; and while I shall endeavor to discharge the duties imposed upon me to the best of my ability, I trust that I shall be assisted and sustained by every member present; and that business will be brought before the Society in a strict parliamentary form, so as to expedite, as far as possible, the business operations of the meeting, and, at the same time, to relieve your presiding officer of much of the burden resting upon him.

After the President's remarks, and the transaction of some miscellaneous business, the regular subjects for discussion were taken up—the first in order being *Difficult Dentition*.

It was ably discussed by Drs. Spalding, Allport, McKellops, Blake, Barron, Branch, Sturgiss, Anderson, Hubbard, Forbes and others, developing much of interest to the profession. The discussion was protracted and ably sustained, members speaking more directly to the point than usual on such occasions.

The cause of difficult dentition seemed generally acknowledged as constitutional, and generally hereditary. Great reliance was placed upon the use of lime in various forms as bone phosphate, lime water and free use of the gum lancet as remedial agents, with some dissent.

Next in order came a discussion of *Causes and Treatment of Irregularities of the Teeth.*

The discussion was participated in by all the members present, and was interesting and instructive. Cases were reported by Drs. McKellops, Peebles and Allport, demonstrating clearly that almost any deformity of the face, at all dependent on the teeth or jaws, is under the control of the judicious dentist.

At the close of this discussion, the Society adjourned, to meet same place at 10, A. M., on Wednesday.

### SECOND DAY—WEDNESDAY, 10, A. M.

Convention met pursuant to adjournment—President in the chair.

*Inflamed Dentine*, and its treatment, was ably, yet briefly discussed —each member stating his particular method and prescriptions; a majority agreeing in the occasional careful use of arsenicum, combined with other substances in various proportions, such as creosote, morphine, tannin, alum, &c. One gentleman remarked that recently he treated almost exclusively by applying cold, to produce temporary insensibility. All took part, and the discussion was lively and interesting.

Next in order came the *Treatment of Exposed Nerves.*

Various methods were brought forward as to the practice of the different members; all evincing thought and careful experiment.

Cases of capping the nerve were reported, of twenty and twelve years' standing, by Dr. Forbes and Dr. Branch; and this practice recommended when the pulp, or nerve, is in a normal condition. Some sometimes, and others always, kill and take out the nerve, fill the cavity and crown. Of this latter class, Dr. Allport reported 184 cases thus treated, of which he had seen 153—of which 8 had small abscesses, and 4 had been extracted—showing conclusively that it is not always best to extract an aching tooth.

### AFTERNOON SESSION.

First subject for discussion—*Best manner of inserting partial sets with clasps.*

The general opinion seemed to be that this method should be used as little as consistent with success—all admitting its deleterious and destructive tendency upon the clasped teeth. That, when used, the bearings of clasps should be as few and small upon the teeth as is consistent with proper security to the piece. Various methods were proposed to effect this object, each possessing merit, and evincing thought and effort in the right direction. After which, the relative merits and demerits of different modes of inserting artificial dentures were discussed.

The prevailing preferences seemed to be for single gum teeth, on gold plate, and continuous gum teeth. Other methods were favorably spoken of, including block work, vulcanized rubber and cheoplasty—some making *fits* with the latter; others *giving it fits.*

A committee on local anæsthesia, as used by Dr. I. B. Branch, appointed at the last annual meeting, reported, through their chairman, Dr. Allport, as follows:—

"The committee to whom was referred the subject of local anæsthesia, by Dr. I. B. Branch's instruments, beg leave to report, that local anæsthesia, as produced by congelation, although attended with some inconvenience in its preparation and application, can be employed with gratifying results in a large number of cases. They regard it as particularly useful in cases where the administration of chloroform would not be admissible." W. W. ALLPORT, *Chairman.*

Fifteen minutes were now set apart to present specimens of improvements in dental art, during which many things useful, practical and ornamental were exhibited. It should have been said previously that Dr. Peebles, of St. Louis, read appropriate and instructive papers on the various topics discussed, which were filed with the proceedings.

Dr. McKellops offered the following preamble and resolution:

*Whereas*, Owing to the great inconvenience of the officers and soldiers in procuring competent dentists, when necessarily required, and knowing the difficulty in which they are placed, being stationed at distant posts, where it is absolutely impracticable for a regular practitioner of dentistry to visit them; therefore,

*Resolved*, That this Society appoint a committee of five, for the purpose of memorializing Congress on the necessity of appointing dentists to be attached to the regular army, and that we recommend the same to the consideration of the American Dental Convention, and ask their co-operation with us.

The resolution was adopted, and the following committee appointed: Drs. McKellops, Spalding, Forbes, Branch and Lewis. President Allport added by vote.

After some further business incidental to the workings of organized bodies, the Society adjourned to meet at Milwaukie, Wisconsin, on the first Tuesday in July, 1859. The session, throughout, was characterized by harmony and good feeling. The President, Dr. W. W. Allport, of Chicago, discharged his duties with intelligent promptitude and gentlemanly urbanity, thus doing honor to himself and the Society.

Among the strangers present was Dr. Andrews, of Mississippi, who, by his gentlemanly intelligence in speaking on the various questions, did much to add interest to the meeting. From what we have seen and heard at this meeting, we are convinced that the dental profession includes a large number of men ardently devoted to the advancement of science, and the alleviation of human suffering, and who will compare favorably with any other profession extant. From the amount of theory given, and facts illustrated, we wonder that any in the profession, who desire to excel, can consent to absent themselves from such meetings.

After the arduous labors of the day and evening were ended, and the very interesting and animated discussions of the final session had terminated, the members present, and a few invited guests, were conducted to an upper room, *tastefully* arranged, and amply supplied with creature comforts. The dentists of Quincy nobly upheld the reputation of our city; though few in numbers, they are a host in hospitality—may their shadows never be less.

After the several courses, and the removal of the cloth, the wine came on in ample supply. Toast after toast was given and responded to, by each gentleman as he was called out, in chaste, pointed and apropos impromptu speeches, all of which we would like to report, if we had room in our columns. During the evening, the following sentiment was given by our venerable ex-President, I. Forbes:

"May the spirit which animated the early promoters of dental literature—the parents of a liberal, free American dental education, and unselfish interchange of thought—find in the young men of the profession temples fit to dwell in."

[A vociferous call was made for Peebles, who replied in a lengthy, impassioned and highly-elevated speech, which is of too great length for our space.—Ed. News Letter.]

## LATERAL PRESSURE OF THE TEETH CONSIDERED IN RELATION TO OBSCURE NERVOUS AFFECTIONS.

*Read at the Fourth Annual Meeting of the "American Dental Convention."*

BY J. M'CALLA, D. D. S., LANCASTER, PA.

The evils resulting from undue lateral pressure of the teeth, have not been sufficiently dwelt upon by authors on dental pathology. Crowded and badly arranged dentures have usually been spoken of, as furnishing conditions favorable to decay, while the more obscure affections to which they frequently give rise have either been allowed to pass unnoticed, or have been attributed to other causes. Periostitis, abscess, necrosis of the jaw bones and tetanus, are some of the more obvious results of this condition of the teeth; while otalgia, epilepsy, hysteria and neuralgia in some of its various phases, though equally frequent, are more liable to be regarded as arising from general debility, or a diseased condition of the system.

The nervous disturbance is frequently so distant from the primary cause as to present serious obstacles to a correct diagnosis. The toothache of pregnant women, unaccompanied with caries, is an instance of this kind, while the sympathetic or reflex action of the fifth and seventh pairs upon the uterine nerves, has, in some rare cases, produced abortion. The object of the present effort is more for the purpose of directing the attention of the profession into that channel, than from any desire to attempt to fill up the hiatus; we shall therefore present the most available evidence that comes within our reach, from the experience of others, in connection with the result of our own observations during a series of years.

Velpeau relates several cases in which mal-position of the wisdom tooth, was followed by necrosis and exfoliation of large portions of the inferior maxilla, fungus growths, immobility of the jaw, epilepsy and insanity. In one case of extensive abscess, the communication with the surface, was by means of a sinus extending down to the clavicle. Some of these cases had been previously treated as rheumatic affection, others as syphilitic; in one case the surgeon was about to extirpate the right tonsil, when the true cause of the patient's suffering was accidentally discovered to be an advancing wisdom tooth.

Mr. Tomes, upon this subject says: "It is obvious that the evils produced by the development of irregularly placed wisdom teeth, arise wholly from pressure produced by the gradual growth of the dental pulp, preparatory to its calcification; by which the super-imposed tooth is forced against the tissues by which it is covered. In the natural course of things, these tissues are absorbed, and make way for the rising tooth; but if they are not absorbed, and, therefore, resist the advance of the tooth, the pressure re-acts through the tooth upon the developing pulp. We all know that pressure upon a nerve or nerves, though slight in degree, will produce more or less pain, and that the pain will be felt in the part to which the fibres pressed upon are ultimately distributed. Instead, then, of being surprised that interruption to the growth of a tooth should produce pain, extending through the whole jaw, or to the side of the head, or about the ear, we should be led to infer that such phenomena would exist.

It would be, perhaps, difficult to estimate the actual amount of mechanical force developed by a growing tooth, but we may form some estimate, by observing the force generated by a growing vegetable. We have, most of us, seen a tolerably weighty piece of stone raised by the growth of a plant beneath, any fibre of which might be readily crushed between the thumb and finger.

Mr. C. Spence Bate, in an article on irregular teeth says: "Perhaps of all the evils which result from irregularity in the teeth, none are so painful and serious in their results, as that which is possible to ensue from the abnormal position of the third molar, and which, from some cause—probably dependent upon our artificial habits—is far more frequently irregularly planted in the jaw, among civilized tribes, than otherwise; and often, when perfectly in a line with the rest, they impinge so tightly against their neighbor, as to be a source of pain, not unfrequently amounting to acute neuralgia. This I believe to be the true source of a mysterious tooth-ache, liable to be confounded with neuralgia, but which the best writers on Dental Surgery are either silent about, or candidly confess their inability to fathom, owing to the conception of the existence of pain being seated far from the origin.

*Case* 1. June 1849, a lady suffering from an obscure nervous affection, was introduced by my friend, the late Dr. Geo. B. Kerfoot, of Lancaster. He had gone through the usual list of remedies, without any sensible benefit to the patient, and now passed her over to me with a view to discover whether or not, the trouble might be ascribed to a diseased condition, or a faulty arrangement of the teeth. The second and third, right and left inferior molars were found much decayed; the wisdom teeth, particularly, were broken down to the edge of the gums, and a source of irritation to the surrounding soft structures; the inflammation consequent upon this state of affairs had extended to the peri-dental membrane, the ramii* of the jaw posteriorly, and the second molars in front impinged so closely upon the wisdom teeth, as to prevent anything like expansion in either of these directions, while the second molar extending above and overhanging the wisdom teeth, prevented upward movement; hence the display of nervous irritability. I advised the extraction of the four teeth named, and proceeded at once to do so; the patient, however, concluded to have but one side cleared at a time. So much relief was experienced by the operation, that she came back in the course of a few days to say that I judged correctly, and she would now submit to the removal of the other two. I have seen, and operated for her repeatedly since then, and can therefore certify that she has had no return of neuralgia.

*Case* 2. July 1849, Mr. J. F. H., aged 24, called my attention to the condition of his mouth, but more especially to the posterior lateral region. He complained of something, not amounting to actual pain, but an uneasiness which constantly served to direct his attention to the left inferior wisdom tooth. Upon examination, it was found to be just emerging through the gum, but under rather straightened circumstances; there was not sufficient room for its proper arrangement in the arch, and as the force from behind appeared to be capable of overcoming all obstacles to its onward progress, it was forced to take a position either outside or inside of the regular arch. In the latter position we found it, nearly covered with a flap of gum, highly inflamed, and the under surface, or that in immediate contact with the tooth, in a state of suppuration, in consequence of which the breath was so much contaminated, as to become a source of annoyance to himself, and those with whom he came in contact. I scarified the gum freely, prescribed a suitable wash, and requested him to let me see it occasionally. A few months afterwards, he called to say, that the other lower wisdom tooth was in a condition similar to the first, only that the pain was much more severe. I found them both sufficiently advanced to be readily arrested, and therefore advised their immediate removal, which was accordingly done. I had frequent opportunities of seeing the gentleman afterwards, and found that his freedom from pain and freedom from the teeth, took place at the same time. As the superior wisdom teeth advanced, however, another round of troubles ensued, similar to those we have just described; these were also removed, and with them the cause. All four of the teeth were sound at the time of removal, which forces us to the conclusion that the sufferings of the patient resulted from lateral pressure, consequent upon the want of room for the proper eruption and regular arrangement of the wisdom teeth.

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* Sometimes erroneously termed, coronoid processes.

*Case* 3. Mr. Charles Bew, in his work on tic-douloureux, London, 1824, presents a number of cases of this disease, clearly attributable to lateral pressure, or undue contact of the teeth. He says, "tic-douloureux seldom makes its attack till that season or period, in which nature has accomplished the usual compliment of teeth for the support and service of the masticating system, and is oftentimes solicited, or aided in its approach, by the insufficiency of space in the jaw destined for their reception. This observation is but too often demonstrated by the derangement and disease of the *dentes sapientia.* Of the many persons I have seen, and relieved from tic-douloureux, all were uniform in the descriptions of the *darting pains*, and uneasy sensations in the vicinity of these teeth, in the first instance, and a sure succession of periodical plunging and twitching of the nerves of the face, nearest in situation to the teeth affected. We give one case in illustration :—A northern baronet of the highest respectability, residing near Kelso, for many weeks suffered misery of a distressing description, from pain proceeding from the angles of the upper jaw, and diverging towards the nose and eyes. His medical advisers attributed it to rheumatic affections of the face, and proceeding on this opinion, the pains were endured with the assistance of palliatives, until endurance was no longer endurable, and the required relief was sought for elsewhere; and, although achieved with difficulty, and danger, proved fortunately effective. A travelling dentist had been much talked of in the town, and was desired to attend the baronet at his seat. When there arrived, the finger of the patient was placed on the spot whence the pain was conceived to arise, and, on inspection, was pronounced by the dentist to proceed from the dens-sapientia, though candor compelled him to declare *he could see no fault in it;* when just at the moment the pain returning with renewed vigor, immediately fixed the baronet's resolution for its removal. Unfortunately, by some mismanagement, or the application of a greater degree of force than was requisite, the expulsion of the pain-exciting tenant was not effected, but at the expense of a great portion of the fixtures adjacent; and though this was attended with some little inconvenience, he had the comfort to find the long-dreaded *darting* had entirely disappeared, and left him comparatively happy, until the arrival of a similar occurrence on the opposite side. And very properly considering he was about to go through a second edition of his former sufferings, sought after relief from more skillful hands, by removal to Edinburgh; and has since appeared to be (as far as regards tic-douloureux) in perfect peace.

*Case* 4. Mr. Liston, the celebrated English surgeon, says—"Sometimes immense mischief arises from the irregular growth of the teeth, and patients have even lost their lives in consequence of it. My friend, Mr. Nasmith, of Edinburgh, a most accomplished surgeon and dentist, who took the right way of studying his profession, having been for years a demonstrator of anatomy, met the following case:—An old friend applied to him with an extensive abscess extending down to the clavicle. His mouth could not be opened, the inflammation locked the jaw, and the patient died. On a post-mortem examination it was found that the cause of the whole mischief was a wisdom tooth growing forward, and lying horizontally, instead of perpendicularly. This is a rare case, but it shows that much mischief and serious consequences may arise from a trifling cause."

*Case* 5. 1851. Mr. J. R. presented himself for the purpose of having a left inferior lateral incisor extracted. His sufferings had been gradually augmenting, for some days previous to the time I was first made acquainted with his condition. He informed me that nothing but dire necessity could induce him to occupy a dentist's chair, but now that time had come. Upon examination, I found the tooth designated, perfectly sound, as were all those in the neighborhood. Supposing the tooth to be under the influence of a reflex or sympathetic action, and the cause to be found elsewhere, I extended the examination to all the teeth in both jaws, but was forced to return to the starting point without discovering anything that would throw light upon the subject. The first left inferior molar was absent, and but for this fact, it is probable I would have suspected lateral pressure as the cause, at an earlier period in the examination. The least pressure upon the tooth was painful in the extreme, and the patient became vociferous in his demands to get rid of it. An explanation of what I now believed to be the cause of his pain, induced him to submit to the employment of the file instead of the forceps. A clear space was made with the instrument between the affected tooth and canine, which removed the pressure and effected a speedy and permanent cure.

*Case* 6. 1852. Mr. B. C. applied to me for advice in relation to the cause of a pain in his jaws, which he described as generally worrying, though sometimes acute. He supposed that quite a number of his teeth were carious, and some two or three so much so, as to require extraction. Before proceeding to an examination, I told him there must be some mistake, as I had a distinct recollection of having left his teeth in complete order only a few months previous, and knew from their character, that the ravages to which he alluded could only exist in imagination. Upon inspection, the prediction was verified; no nook could be found, which could raise a doubt as to their soundness. The description of the pain, taken in connection with the age of the patient, (about 24 years,) led me to suspect the wisdom teeth as having some agency in the trouble. None of them were erupted, but the tumed and inflamed appearance of the gum behind the second right inferior molar, gave evidence of an advancing tooth. I made a free incision into it, and requested him to let me occasionally see how the case progressed. About six months afterwards he paid me another visit, after having passed a sleepless night, in consequence of a return of his former trouble, now very much aggravated in character. No part of the tooth was yet to be seen; there was little or no tension, or inflammation of the gum, head hot, and considerable flow of saliva. It was now evident that the tooth had been developed in the ramus of the jaw, for want of sufficient space in the body of the bone, and the presentation being nearly horizontal, brought the entire expulsive force against the posterior surface of the second molar. I advised local depletion, the hot foot-bath, and whatever would tend to diminish or divert the action from the affected region. By these means the patient was enabled to enjoy a season of repose, which lasted the greater part of a year. During this time the tooth had changed position; a portion of it was now visible, forming an obtuse angle with, and pressing hard upon the tooth in front. It is unnecessary to describe the minutiæ of the operation of extraction; let it suffice, that it was accomplished with much difficulty. But the relief which followed, amply compensated for the pain endured during the process.

*Case* 7. Mr. Davis records in the *London Lancet* of Aug., 1846, the case of a lady who, six days after labor, was attacked with a severe pain in the region of the uterus. It was of an intermittent character, and during the intermissions she had pain in the face. Leeches, fomentations, etc., were applied to the abdomen, and calomel and opium given internally. He remarks: "The pain in the face now became more severe, and the patient, supposing it to arise from toothache, surrounded the parts with flannel. This circumstance led to inquiries on my part, which ended in an examination of the mouth, when I found the posterior part of the gum, red and swollen. The mystery was explained; one of the dentes sapientia, the cause of all the pain in the uterus, was coming up. The gum was freely lanced; and the pain in the uterus from that moment, subsided. No more medicine was required or given."

Dr. W. Tyler Smith, of London, says: "Irritation of the *trifacial nerve* seems, in rare cases, to excite abortion. It happens when no cause can be recognized but the appearance of the dens sapientia, and this phase in dentition is known to produce considerable local and constitutional disturbance. General convulsions may, in fact, be excited from this source, either in the male or female subject. The reflection of irritation from the trifacial upon the uterine nerves, in young pregnant women, is no more remarkable than the strangury excited by teething, in the infant."

The lamented Prof. Handy, in considering the relation between the dental organs and uterus, says: "When the question is asked, How is it, that an organ sympathises with some one, in preference to another? we look for the answer, and reply that it is either owing to its contiguity, or is concerned in the performance of the same function, and hence indicating the closest fellowship and most intimate relation. But in the case of the teeth and uterus there is no such relation, either by contiguity, by direct intercourse, through nerves, or by any special connection in the performance of function. Yet it is manifest there must be a relationship, through some channel or other, to explain the presence of symptoms, which clearly flow as cause and effect, and as clearly point to the dependency which evidently exists between these two sets of organs. Then the question is, What is this channel of intercourse? A man has locked jaw, from injury of the toe, a sympathy even more remote, and quite as obscure as that of the teeth and the uterus; and no one questions this relationship—but how does it exist? Now, our own opinion is, that the medium of connection is the same in both cases, and that the sentient tract of the spinal marrow is the medium. In the one case, the sentient nerves of the uterus, being impressed by the changes occurring in this organ, at the period of menstruation and pregnancy, reflect this impression to the sentient tract of the spinal marrow, whence it is conducted upwards, along this tract, to the point where the fifth pair of nerves pass off; and here it takes the route of this nerve—the great sentient nerve of the teeth and face—going along the dental branches where there is pain in the teeth; and, by a reflex action, to the muscles of the lower jaw, in the case of *trismus*, where the impression from the sentient nerves of the toe are also reflected to the spinal marrow.

*Case* 8. July, 1854. Mrs. H. L. Z, called for advice in regard to some dental trouble, which she was unable to account for. She described the pain as being unlike toothache, yet so severe as to deprive her of rest at night. She had employed opiates by the advice of her physician, but the relief thus obtained was temporary, and of short duration. The second left inferior molar was thought to have some agency in the trouble. Upon inspection I found the lower arch complete, with the exception of the wisdom teeth, and no appearance of their approach could be discovered. The teeth all sound and regular, though much crowded. I attributed her sufferings to lateral pressure of the teeth, but whether occasioned by an advancing wisdom tooth, or periostitis resulting from some other cause, it was not so easy to determine. The passage of a file between the first and second molars, would have removed the point of resistance, but as less harm would result from an exploration behind the second molar with a sharp lancet, this was the course adopted, and revealed the presence of the wisdom tooth, deeply embedded in the jaw. A gentle aperient was ordered, in addition to the hot pediluvium, before retiring at night, and this, in connection with the local depletion, served to give a respite of several weeks. The pain now assumed more of the neuralgic character, distributing its agonizing pangs along the different branches of the facial nerve, from the battery of the *pes aserinus*, and producing a degree of prostration, from which she only recovered to meet another attack of the same fearful character. The removal of the second molar seemed to present the best prospect of relief; but this she refused to submit to, indulging the hope, that by the employment of milder means for a time, the wisdom tooth would become sufficiently advanced to be easily extracted, and thus preserve the most important tooth of the two. A few more paroxysms, however, brought her back for relief upon any terms. I proceeded to extract the second molar, but found an unsuspected impediment to its removal; the posterior root diverging very much from a straight line, passed under the crown of the wisdom tooth, while it impinged closely upon the angle thus formed in the second molar. Here was a lock without a key. There was some motion towards the cheek and tongue, but no extraction; indeed, the extreme nervous susceptibility of the patient forbade the employment of harsh measures. The movement given to the tooth it was hoped, might be sufficient to enable the wisdom tooth to glide past the point of resistance, and with this object in view, it was abandoned for the present. For several weeks there was no return of the trouble. Upon her next visit, I found the wisdom tooth making its appearance through the gum, which I lanced thoroughly ; and during the six months following, this operation was frequently repeated by her physician and myself, and always afforded relief. But to get entirely rid of the trouble, was now her most anxious desire. The change in position which had taken place since the former attempt at extraction, was so trifling, as to give but little hope of success now, yet the attempt must be made. With a stout-bladed lancet, a portion of the inner wall of the alveolus was removed from the second molar, the tooth arrested and luxated by turning it towards the cheek, sufficiently to enable the points of root to mount over the part from which the alveolus had previously been removed, and raised sideways from between the other two. The operation was followed by an entire cessation of the neuralgic affection. Four years have elapsed since then, but no return of the trouble.

The importance of a thorough knowledge of the various evils resulting from the condition of the teeth now under consideration, is strikingly illustrated by a case to be found in Prof. Harris' Principles and Practice. The subject, Mr. D. M., after years of suffering, consequent upon efforts at the eruption of a wisdom tooth, sought relief by a change of climate, in addition to the best medical advice. Both, however, proved unavailing; the irritation extended to the lungs, and established a confirmed phthisis pulmonalis, from which he was only relieved by death.

A record of three cases of abscess of the gums and cheek, two of which opened externally, first appeared in the London *Lancet* of March, 1857, and subsequently in the *Dental News Letter*, Philadelphia, January, 1858. In one of the cases, various remedies had been tried in vain, by different physicians, until Prof. Syme, of Edinburgh, discovered that the abscess arose from a wisdom tooth, coming up in the jaw, for which there was not sufficient room. The extraction of the second molar was followed by the gradual subsidence of the swelling; the wisdom tooth soon filled up the vacant space, and the patient was permanently cured.

*Case* 9. 1856. A German man aged about forty-five, suffering from what he supposed to be toothache, called upon me for the purpose of having one or two teeth extracted. Upon inspection, it was found that the entire denture was present, and every tooth sound, but so jammed together and abraded, as to present the appearance of one continuous block. The first and second left superior molars were pointed out as the seat of the pain; periostitis produced by lateral pressure was clearly indicated; separation with a file was the only treatment necessary. About one year afterwards he called to have a similar operation performed on the opposite side of the jaw, which speedily relieved him of pain, as on the former occasion.

*Case* 10. 1858. A gentleman, aged about fifty, called upon me early one morning in February, for advice in regard to the cause of his having lost a night's rest. He walked up and down the floor as one demented, holding on firmly to the aching jaw. Upon examination I found the upper arch unbroken, with the exception of the first right superior molar, which had been removed about one year previous to this time. The finger of the patient was placed upon the second right superior bicuspid, as the offender. There being no appearance of decay present, I made pressure upon the tooth in the direction of the space left vacant by the absent molar. This aggravated the pain, and at once suggested the remedy. The passage of a file between the first and second bicuspid, was followed by instantaneous relief.

The two following cases are condensed from Desirabode's work on the teeth, translated from the French, for the American Library of Dental Science.

*Case* 11. In 1822, Dr. Olmade was attacked with odontalgia, with which he was tortured for three months. The violence of the symptoms was such that his mouth was closed spasmodically, and he was compelled to subsist entirely upon liquid aliment. Having had occasion to see him, at the time his sufferings commenced, it was observed that one of the wisdom teeth of the lower jaw was on the point of coming through. To this cause alone the disorder was attributed, and the patient was advised to have it extracted. Dr. Olmade deferred submitting to the operation until an abscess had formed, which caused a fistulous opening through the cheek. At the same time a portion of the maxillary bone became necrosed, and some fragments escaped with the pus. Becoming convinced that he could obtain no relief from medicine, he determined to follow our advice. The condition of the parts contiguous, was now such as to add very much to the difficulty of the operation. It was therefore found necessary first, to remove the second molar, the crown of which was almost destroyed. The roots of this tooth were anchylosed to the alveolar walls in their whole extent, although they were very short. It was this anatomical arrangement to which was to be attributed all the sufferings of the patient. The wisdom tooth, in fact, not having room enough between the angle of the jaw and the second molar, and not being enabled to displace the latter, it had taken an almost horizontal direction from behind forward, so that the posterior face of the crown presented upward. A short time after we effected the extraction, the abscess and fistula closed, but the cure was not completed till after the lapse of two months.

*Case* 12. The subject of this case was the son of a rich merchant of Bordeaux, who had been obliged to submit to the extraction of the first right inferior molar, which was deeply excavated by decay. The dentist who was entrusted with the operation, broke the tooth off close to the gum, and consequently left all the root in the alveolus. Two years passed away, during which the patient experienced no inconvenience from the root; but at this time, (he was then twenty-two years of age,) he felt a constant sensation of tension, not only immediately about the root, but in the adjacent parts, particularly towards the back part of the mouth. It was not long before this feeling of tension took the character of pain, and this pain in a short time became very troublesome. The dentist who had broken the tooth was again consulted, and not doubting that the presence of the root was the cause of the pain, he attempted its extraction, but all his efforts were fruitless. He then advised the extraction of the adjoining tooth, which, closing up the orifice of its alveolus, prevented the extraction of the root. The father of the young man, not believing that it was necessary to extract a sound tooth, in order to effect the extraction of a root, and fearing for this one the fate of the former, refused to permit the operation, and advised his son to wait till their arrival in Paris, to which city they were called by business, so that they might consult, in the case, some of our celebrated surgeons. On their arrival in Paris, they consulted Dupuytren. This illustrious practitioner had scarcely examined the mouth of the young man, when he perceived from the deviation of the tooth which covered the root, that the wisdom tooth, obstructed in its eruption, had pushed all in front of it to such an extent, that this latter had been buried in the alveolar tissue, thus causing the incessant pain experienced by the patient. He advised the extraction of the displaced tooth, in accordance with the advice of the Bordeaux dentist, and M. Desirabode, with much difficulty, succeeded in performing the operation, which sufficed to bring about a speedy cure, as complete as it was prompt.

Jourdain relates a case in which the subject had suffered five years from hemicrania, accompanied with pain and numbness in the lower jaw. After submitting to depletion, to an unwarrantable extent, she was fortunate enough to fall into the hands of M. Petit, who discovered that the trouble arose from a crowded condition of the teeth, there being eighteen instead of sixteen in the lower jaw. By extracting the second right and left inferior molars, he gave complete and permanent relief in twenty-four hours.

Dr. C. T. Cushman, in the *Dental News Letter*, Vol. 5, presents four well marked cases of periostitis, produced by a crowded condition of the teeth, and concludes that necrosis if frequently occasioned by the pressure of irregular teeth upon each other, in a maxilla too contracted to admit them in a proper position.

Dr. J. D. White, of the *Dental News Letter*, reports a remarkable case of periosteal irritation, in Vol. 7, of that journal, which, after successfully resisting the treatment of several medical gentlemen, was pronounced a case of "irritability of the periosteal membranes, consequent upon the development of the wisdom teeth," and subsequent treatment proved the correctness of the diagnosis.

Dr. W. H. Baker, in Vol. 7, *Dental News Letter*, gives two cases from his note-book, illustrating the utility of the file, in the relief of pain, produced by the lateral pressure of teeth, in their development.

Mr. Fox says: "It frequently happens that when either of the *dentes sapientia* of the lower jaw occasions pain, that the patient does not suffer so much in the tooth itself, as in the ear. The pain often follows the course of the nerves, being diffused all over the cheek, shooting up to the temple, and affecting the head generally."

In corroboration of this, I will here present a case which recently came to my knowledge.

*Case* 13. June, 1858, Miss L. A. R. applied to me for advice in regard to a neuralgic affection, from which she had been suffering for several months. Her trouble began with pain in the jaw, at first slight in degree, but which gradually became more acute and fugitive in its character; sometimes concentrating its forces in and around the ear, and again shooting across the temples and forehead, and occasionally settling in a decayed tooth. Some months before I first saw her, she called upon her dentist, who removed the first and second left superior molars, which were so much decayed as to induce the belief that they were the cause of her sufferings. This was followed by a complete cessation of the pain, which continued about three weeks. The occurrence of an unusually damp and rainy season, appeared to furnish conditions favorable to its return, and her sufferings for some weeks, had been most intense. My attention, for some months previous, having been specially directed to the subject of the present paper, it was natural that my eye should first fall upon the region of the left inferior wisdom tooth. I found it striving hard for its proper position in the jaw; the second molar was deeply excavated by decay, and the force from behind, exerted upon the advancing wisdom tooth, had lodged its crown in the carious cavity adjacent. I told the patient her trouble was caused by want of space for the wisdom tooth, and advised the extraction of the second molar, it being the least valuable of the two in this instance. To this she readily consented, and I have been gratified to learn, within the last few days, that she has been entirely free from neuralgic trouble, ever since that time.

*Case* 14. Dr. Kœcker relates the following case:—Miss G., of Philadelphia, about sixteen years of age, was troubled with a complaint in her ears, attended with severe pain, and discharge of yellowish matter from them, difficulty of hearing, much general debility, and great depression of spirits. No means had been omitted to obtain the best medical and surgical advice, but it had been utterly unavailing. Her father, and the greater part of her brothers and sisters, were also hard of hearing, and some of them were sometimes troubled with a like discharge from the ear, though not to such an extent, nor accompanied with such severe pain. The cause was supposed to be some natural defect in the organization of the parts, and the affection consequently regarded as incurable. The teeth were, generally, under the influence of caries, and the disease had penetrated to the cavity in some of them. They were all more or less encrusted with tartar, her gums, and the sockets of her teeth, were much inflamed, and bled at the slightest touch. The second left inferior molar was carious and painful, and the opposite one was also carious. The crowns of the second right and left superior bicuspides were nearly destroyed. There was but little room for the dentes sapientia, and knowing that in the warm and changeable climate of America, their formation is frequently hastened at a premature age, particularly in delicate and irritable constitutions, I readily suspected that their precocious formation, and the want of room for them to pass through the gums, in combination with the diseases of the teeth, were the causes of the inflammation, and the pain in the ears. Dr. K. at once instituted the treatment indicated in the case, and in conclusion, remarks: "These measures were followed by great improvement of the general health, cessation of pain in the ears, as well as the discharge; the hearing became good, but not quite so acute in the left as in the right ear. Before I left

Philadelphia, in 1822, I saw the patient very frequently; her health and spirits were good, and her hearing, if not perfect, was as good as that of any other member of her family."

From the various testimonies which have now been offered it is evident that numerous nervous disorders are dependent upon the irritation caused by lateral pressure of the teeth, and that these disorders occur most frequently about the time of eruption of the wisdom teeth, in consequence of imperfect development of the maxillary bones, or the too early removal of the deciduous teeth, whereby contraction of the dental arches is produced, and a consequent insufficiency of space for the proper arrangement of the permanent teeth.

In relation to treatment, it will be unnecessary to extend our remarks, farther than to say, that the various phenomena attending these affections, require the closest scrutiny. Cases frequently occur so obscure as to evade, for a long time, the most searching investigation. A keen discernment and sound judgment are necessary, therefore, on the part of the dentist, to enable him to discriminate between reflex or sympathetic action, and immediate or exciting causes. In this manner alone will he be enabled to direct his remedies to the source, and not the symptoms of the trouble, and vary their character to suit the circumstances of each case; allaying or subduing inflammatory action, soothing and quieting the nervous sensibilities, and seizing the most favorable opportunity to remove the exciting cause.

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For the Dental News Letter.

## AMERICAN DENTAL CONVENTION.

BY S. S. WHITE.

The Fourth Annual Convention of American dentists assembled at Cincinnati, on the 3d of August, at which we had the pleasure of being present. The attendance was not so large as on either of the previous occasions—about one hundred and forty being the largest number present at any one time; but the deficiency in numbers was more than compensated for by the earnest spirit manifested by those assembled. The representation from the east was very small; the west and southwest furnishing the majority of those in attendance. Notwithstanding the falling off in numbers, the interest taken in the discussions was somewhat remarkable; so much so, indeed, that it almost amounted to enthusiasm in both speakers and listeners. This, in fact, was such a marked feature of the meetings, as to become the subject of special comment, it being repeatedly observed, that the debates were of a higher character, and gave evidence of a more extensive knowledge of the subjects under discussion, and a more earnest and philosophic spirit of inquiry, than most of those which had preceded them. This, perhaps, to some extent, was a legitimate consequence of a previous knowledge by advertisement of the subjects to be considered; though much more was due to the desire and necessity for a better knowledge of science, in its special relations to the normal and abnormal conditions of the dental apparatus.

Although a detailed report of the proceedings would be interesting, the necessity for it has been obviated by the carefully condensed report of Professor Watt, whose aim has been to give the *ideas* advanced, rather than the precise words in which they were conveyed; thus accomplishing the objects of such reports more effectually, and in less space, than if given by a reporter unacquainted with the subjects under consideration.

These conventions are of great value in various respects; chiefly, in the greater degree of scientific and professional improvement they promote, yet useful collaterally in breaking up sectional prejudices; giving more enlarged and liberal sentiments of nationalty, and developing more actively the social and fraternal sympathies; thus forming strong and pleasant bonds of union between the widely-scattered members of the profession. Although, on previous occasions, these social advantages have been happily realized, our Cincinnati friends seemed determined to omit no effort to increase them, and nothing was wanting or left undone on their part to develop them to their greatest extent.

On Thursday afternoon, carriages were provided to convey the visitors over Mount Auburn, to Spring Grove Cemetery, and thence back to the city, by way of Clifton, a route adorned with country seats, vineyards and gardens—forming a suburb of almost unrivalled beauty. The Mount displays handsome improvements, and affords extensive views; while the Cemetery, which possesses many natural advantages, has been laid out with much judgment and skill, presenting a noble monument of the taste and liberality of the citizens of Cincinnati.

The ride was followed by the evening entertainment, which consisted of a fine supper, delightful music and enlivening speeches. In connexion with the subject of entertainments, we must not omit to mention and thank our old (though still young) friend, Dr. C. Bonsall, who was untiring in his efforts to promote the comfort and increase the pleasure of those present, and to whom we are indebted for much personal attention. May we have the frequent pleasure of seeing his cheerful face, and especially at every annual gathering for many years to come.

Independent, however, of the advantages connected with these fraternal relations, important professional results cannot fail to follow these annual conventions. In fact, their usefulness is so apparent that it becomes a prominent question, whether they shall not (in some form) be permanently established as part of a course for professional improvement, that by the union of all the means of education, the greatest practical benefit to our profession and science may be derived.

The means for the necessary primary and preparatory training in the theory and practice of dentistry, are to a certain extent provided for in the many excellent public as well as private courses of instruction; still, even in this department, much remains to be done, although those engaged in it are so energetically extending the facilities for professional acquisition as to attract the notice and receive the enconiums, of even our trans-atlantic brethren. This is, however, but a natural result of the ability characteristic of our countrymen to disseminate as well as to acquire and practice scientific truth. But while the means for primary education in dentistry are becoming so abundant through the private teaching of individual preceptors and public instruction in our colleges and journals, that none can have an excuse for ignorance; the facilities for continuous education and professional advancement of those already in practice are very inefficient. Hence, it is a matter, not only of great importance, but absolute necessity, to provide a permanent system of improvement that they may better fulfill the obligations to society which rest upon them. The several excellent journals published in this country and England supply this need to a certain extent, but there are many close students and hard workers among the profession who either cannot or will not take the time necessary to prepare articles for publication, and yet cheerfully communicate orally. The advantage of securing to society and to each other the results of their experience and mental efforts is too obvious to need argument or illustration; local societies and conventions are, therefore, the natural out-growth of the desire to secure the benefits of each other's experience and study.

These convocations have already effected much good and cannot fail to prove useful in the future by the stimulus which they give to individual mental effort, by the wide range of thought induced and the ready comparison of views which association and the oral mode of communication so happily afford. Thus, more frequent opportunities are afforded for an interchange of ideas between the members of the profession, many of whom are otherwise cut off from that regular mental attrition so essential to professional development and progress.

General conventions, then, composed of persons from all parts of the country, have become a professional necessity, as they disseminate information, while they excite a spirit of emulation by a direct appeal to individual pride and duty for that development and extension of knowledge essential to the interests of the profession and society at large.

The important questions now suggest themselves, upon what principles shall a permanent organization be established, and how shall it be conducted so as to take advantage of every intellectual peculiarity and obtain the highest results from their combined action. These questions can only be satisfactorily answered by acting in accordance with the principles which govern the general relations of life, in which individual equality and general reciprocity are recognized. The only standard should be that of merit, every member holding a position proportionate to his merit and required according to his ability to add his quota to the general fund of knowledge.

As in the commercial world, nothing is expected without an equivalent, so in the intellectual, no one should receive the results of the mental efforts of others without recognizing the obligation, and making an effort to return, as far as possible, an equivalent, by directly increasing the knowledge of the giver, or by adding to the general fund of information. He who does not recognize and endeavor to liquidate this intellectual debt has no higher appreciation of honor and justice than he who disregards the natural obligation to physical labor, or appropriates the wealth of others without rendering a just equivalent.

For the Dental News Letter.

## ON THE DENTAL MOVEMENT IN ENGLAND.

To the Editors of the Dental News Letter—*Gentlemen :*—In your April number I observe a very heart-stirring suggestion, to assist in which, I should think our brethren on this side of the Atlantic would enthusiastically unite. Twelve months ago, I can say for certain, the College of Dentists would have hailed a visit from the dentists of America with immense pleasure, and I doubt not would still do so. *But* (I hate the horrid little word) the poor College is sadly shorn of its greatness. Jealousy and illiberality without, treachery and imbecility within, have reduced that noble and liberal institution which promised, and would have fulfilled its promise, of great and beneficial results, to a *wreck* of its former self.

With your liberal trans-atlantic notions it may seem paradoxical that an institution, commenced by a public meeting of the profession, should have met with so much animus; even to those here not immediately concerned in the movement, this is difficult to conceive; but to the initiated it is forcibly perspicuous. And, that no misunderstanding may exist in America, whose noble institutions we fain would have emulated, I shall briefly give an outline of the movement—its rise and fall.

I believe it is admitted on all sides, that for many years the want of status and union has been both felt and acknowleged; but how to bring about this desirable concord was the great difficulty; there being certain individuals who seemed to imagine they held a prescriptive or vested right to the dental loaves and fishes. "But to our Tale."

In the *Lancet*, August 25th, 1855, a letter appeared from Samuel Lee Rymer, entitled "The necessity for a College of Dental Surgery." This was followed upon the 8th of September by a letter from myself, on "Dental Diplomas." But those letters did little to agitate the matter, and it is probable that, had not Mr. Rymer, at his own expense, called a public meeting upon the 22d of September, at the Free Mason's Tavern, things would have remained in statu quo. I was present at this rather numerously-attended meeting, at which there was but a sprinkling of the leading practitioners. However, business proceeded; a committee was formed to organize the movement; and, in compliment to the gentlemen in high positions, although absent, most of them were provisionally nominated upon the committee. During the proceedings, a young gentleman, seemingly not known to those present, remarked, that he believed a few gentlemen of the profession had taken upon themselves to petition the College of Surgeons to grant a special diploma in dental surgery, as in midwifery. This secret proceeding, on the part of those gentlemen, did not seem to meet the approval of the assembly. The appointments were nevertheless concluded, placing certain power in the hands of this publicly-appointed committee; to which I was elected Chairman, and Mr. Rymer, Secretary. The work now proceeded merrily; progressing fast under the appellation of the "Institute of Dental Science." Hundreds of dentists from all parts sent in their adhesion; until, like unto a snow-ball rolled on, its dimensions grew gigantic; we being then supported in our labors by the *British Journal of Dental Science*, and opposed on every available point by the twelve or eighteen gentlemen who had petitioned the College of Surgeons. These gentlemen speedily set about forming that which is now called the "Odontological Society," having, for its object, the avowed endeavor to crush the rising college in the bud, by the weight of its opposing influences. But this was not to be so easily effected; the work still proceeded cheerily.

A public meeting was again called upon the 11th of November, for the purpose of forming the association, or rather christening the one at that time pretty well formed. Mr. James Robinson was called to the chair. The rules were presented to the meeting, discussed and returned to the executive, with the suggested alterations, to be re-presented in form to the profession at a future meeting. During this interval, it must be noticed that the *British Journal of Dental Science* was *purchased* by the promoters of the rival society; so that now, instead of its support, we had to endure its vituperation. Notwithstanding these drawbacks, our open, fair and liberal proceedings carried with them to the profession conviction of propriety, and we kept rapidly on the increase. From letters and arguments, it was decided, that as a society had started into existence, and a dental educational establishment was much needed, our institute should become a College. "But, Sirs, this pleased them was't ava," and a dire animosity set in upon us.

On the 16th of December, 1856, another public meeting was held, called by the provisional committee, that they might render account of their stewardship—myself, as Chairman, presiding. The rules were now passed, and the college formed; about two hundred members were enrolled; Mr. James Robinson elected President; and almost an entirely new council nominated. The members of the provisional committee, with few exceptions, were overlooked, in order to make room for that element which proved its ultimate destruction.

On February the 14th, the inaugural meeting took place, when the President made a very appropriate address. Alas! for poor human nature, how little can we foretell what a day may bring forth.

For about ten months, the college continued to progress, and bid fair to realize all our fondest hopes and expectations; but there was an adder in its path—a viper in its bosom. Measures began to emanate from, and new laws to be enacted by, the council, which were distasteful to the members. An educational curriculum was proposed, which required many more qualifications than would even be necessary to pass Physicians' Hall. Indeed, a course of study, that seemed to have the effect of thoroughly frightening its concocters into a compromise with the "Odontological Society," unless it might have been a part of a deeply-laid plot to sell the college to that body. Be that as it may, a little odontological cajolery and a good dinner completely bought over the President to the amalgamation question, which, in plain English, amounts to this: "If you will agree to sink the college, which seems destined to carry so much weight, and allow it to become a mere society, we will extend the hand of patronage to such of you as we think may deserve our notice; by which means, the great will remain great, the little small, and we shall no longer be tormented with the fear that rising talent will be brought forward, and our positions and prestige threatened."

In January, 1858, the Odontological Dinner took place, to which were invited Mr. Robinson and a few of his friends and privy council. They were feasted and flattered. This sealed the fate of the College. On account of the extreme unfairness of the propositions, and the arbitrary method taken to force them, the amalgamation was rejected by the members. The President resigned, taking with him nearly all the influential portion of the council, who, no doubt, had been well-tutored into exclusiveness by the destructives; driving the remaining councilmen into the highways and by-ways to recruit their ranks. Thus, and for the present, is the moral prestige of the college gone. Still, its friends think "there is life in the old dog yet," in spite of its dreadful fall. Let us hope so, and that, when resuscitated, the hands that threw it over the cliff, may be painted in red upon its altar, as a memento to all those who may hereafter reap benefit from its instructions.

And now, gentlemen, I leave you to judge whether a visit would be well-timed, in the present disjointed state of the profession in England. Time works wonders; let us hope things will mend. The contemplated World's Exhibition of '61 may prove an additional inducement and a fitter time for our brethren of the West to visit us.

I remain, gentlemen, most cordially yours,

Donaldson Mackenzie.

Saville Row, London, July 9th, 1858.

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From the above, it would seem that the dental educational movement in England has met with serious checks, and that the desire to connect both organizations, and thus concentrate effort, has led some (whose earnestness in the cause of dental progress we cannot doubt) into unreasonable concessions, or to the acceptance of what is considered by many as humiliating conditions, in the furtherance of this very desirable object. We trust, however, that these checks will prove but temporary, and that the college will soon be reinstated in professional favor and support, as, indeed, our correspondent gives us reason to hope.

In reference to our suggestion of a meeting of the American Dental Convention in London, it will be remembered that we named 1859 or 1860 as the time, but as a year is of no great importance in such connexion, and the hearty co-operation of the British dentists all important, we readily accept the suggestion made by our correspondent as above, and submit that August, 1861, be fixed upon as the best time for the meeting of the "World's Dental Convention" in London.—Ed.

For the Dental News Letter.

## A SINGULAR CASE.

The question, whether a tooth once extracted and placed back into the same socket again will become solid and permanent, has been a long time settled, but I had a case last year that was a little singular. I gave chloroform to a middle aged lady, and extracted a number of teeth, and among them was a superior lateral incisor and the opposite. The latter had grown out at the roof of the mouth, entirely inside of the arch, and was sound. A full half hour after the entire operation was completed, and the sound tooth had been handled by some friends present, it was suggested that if this tooth would fit the vacant place of the other lateral incisor and grow in, it would be a happy circumstance. I took up the tooth to see if it would fit the socket and found, with a vigorous push, it went home. I left it there, telling the patient if it troubled her to come in, as she lived next door, and let me remove it. That night it pained her severely, and the endeavor on the part of herself and husband to remove it, having failed, they concluded not to disturb me until morning. But the pain having then subsided, the tooth was allowed to remain, and it is now firm and healthy, only wanting a little filing to present a handsome appearance. Such summary operations, it must be confessed, cannot be reckoned among the profitable services of the dentist.

P. M. Reed.

When we were a small boy, a young lady of the family in which we were raised, lost a front inferior incisor. Her elder brother, a young man, took a loose tooth of the same kind from the mouth of the mother of the young lady, and forced it into the socket, with a stick of wood; in twenty-four years after, we extracted this tooth to make way for an artificial set. The teeth of the young lady had all decayed, but this one was sound.

J. D. W.

For the Dental News Letter.

## COLLEGE OF DENTISTS OF ENGLAND.

On Wednesday, August 25th, a special general meeting of the members of this College was held in Cavendish Square, for the purpose of considering the following propositions:—

*Proposed Regulations relating to Candidates for the Diploma of Membership of the "College of Dentists of England." To come into operation on the* 1*st day of January*, 1861.

1st. Candidates shall be required to produce the diploma of the "Royal College of Surgeons," or that of some recognized Home or Colonial licensing surgical body.

2d. Candidates shall also be required to produce a certificate of having been articled to a Dental Practitioner for a period of not less than four years. Such certificate to be delivered to the secretary of the College, thirty days before the candidate shall be elegible for their dental examination.

3d. Associates of the College enrolled, and pupils who shall have been articled to members of the College, previous to the foregoing regulations coming into operation, shall be eligible for membership by passing a dental examination only.

4th. Any member who shall maintain his membership for a period of three years after the ratification of these Rules, shall be entitled to the diploma of the College. And any person who may become a member previous to the foregoing regulations coming in force, shall be entitled to the diploma of the College upon the expiration of the third year of his membership.

Mr. Peter Matthews (President) explained that the proposed regulations were brought forward by the Council. Mr. Bell was the gentleman to whom the credit of originating them was due, and he called upon him to move their adoption. Mr. Bell moved their adoption accordingly, which, having been duly seconded, Mr. Rymer thought some statement should be made in regard to the propositions, as they alluded to the College of Surgeons, and it might be thought it was intended to be dependent upon that particular body, whereas the fact was, the College of Dentists would maintain its independence, as all they wanted was a guarantee of surgical proficiency, whether it came from the London College of Surgeons, or of any other recognised licensing surgical body in the world. The mechanical examination would be entirely conducted by the College of Dentists. As the number present was small, he thought the members present should be polled on so important a question. The resolutions were put from the chair and carried unanimously. A poll of the members was fixed to take place on September 22d. If the result of the poll should negative the propositions, it is understood the Council will resign their positions.

SAML. LEE RYMER.

North End, Croydon. S. England.

For the Dental News Letter.

## THE ADMINISTRATION OF CHLOROFORM.

It is singular that dentists should still have objections to the use of chloroform by inhalation. From careful investigation, I am convinced the cases of fatality have been either when the chloroform was mixed with ether, or the operator has been timorous and inexperienced, or, what is very probable, impure chloroform had been used

1. I think chloroform and ether should never be mixed. If both are given to the same patient, they should be used separately—the ether first, and close off with chloroform. In case of accident, whichever agent is used, the world understands it to be all chloroform. I have again and again tried both the anesthetics separately, and the admixture, and always returned to the almost exclusive use of chloroform. But my uniform success in the use of chloroform I attribute very much to the employment of that manufactured in your city by Messrs. Powers and Wightman. I have used this manufacture seven years, and it never disappoints me. On the contrary, when I have been obliged to resort to the temporary use of any other preparation, I have had great pallor, prostration, emises, hallucination and difficulty in obtaining the satisfactory insensibility. Besides, I use particular care in keeping my bottles constantly in a cool and dark place in the cellar, having none about my office, but a little for external and chemical use. And, moreover, I procure, when I can, direct from the manufacturers. Every one is aware that light and heat produce in it *fusil oil* to a greater or less extent. Hence, perhaps, the cause of the occasional accidents. I wonder there are not more.

2. Confidence and caution will carry the operator safely through. It has been the timid and reckless who have met with accidents. If the brain, lungs and heart are sound, you feel you have a good basis to start with. Yet, who can be certain of his diagnosis? Watch the effect, then, of a small quantity; repeat often, and when you are sure all is right, go ahead. But at what point shall you hold up? No one symptom or group of symptoms will serve you. And here lies the tact. You, of course, do not carry the process so far as formerly. Insensibility will do in the majority of cases. Stopping short of profound unconsciousness, will keep you on the right side of the line of danger. In the single operation, pushing no farther than the passive state, will, when the tooth is out, fully satisfy the patient. He then can get up and walk off, felicitating himself that his life is safe this time.

3. By using chloroform, we save the unpleasant odor of ether in our rooms, get more speedily through the operation, and feel assured no subsequent unpleasant effects will supervene. P. M. Reed.

For the Dental News Letter.

## AN INTERESTING CASE.

Gentlemen:—I send you the following history of what I consider an interesting case for our profession. If your opinion is the same, you are at liberty to publish it in your paper.

Respectfully yours, E. Pilate.

A young woman, about twenty, had the right lower sapientiæ so implanted, that she constantly bit her cheek, particularly in the act of mastication; this produced deep ulceration of the mucous-membrane, and even of the approximate muscles. She applied for relief to an unskillful person, who, instead of extracting the tooth at once, cauterized deeply the ulceration. From that moment, the patient had difficulty to open her mouth, and in a short time the jaws became so tightly closed that no food could be introduced into the mouth except milk, and that with great difficulty. The poor woman had been nearly one year in that miserable condition, when she presented herself to my friend, Dr. R. H. Littell, who called me to examine the case and assist him. With two levers, made of hard wood and wedge-shaped, that we introduced (not easily) between the teeth, we succeeded by degrees to open the mouth sufficiently wide to ascertain the extent of the mischief. A very hard scar had formed itself, and the pterygoides internus was so contracted and rigid, as to keep the jaws completely locked. That muscle was divided deeply with the knife, by repeated incisions, until the lower maxilla became free; the sapientiæ and its next neighbor were extracted. This done, and the wooden wedge being removed, the patient could easily open and shut her mouth, to her great satisfaction and ours. We advised her to keep, as much as possible, a good-sized wedge between the teeth to prevent a new contraction of the incised muscle during the cicatrisation process, and eight days after that little operation, the patient returned home without any more fear of dying of starvation. E. P.

Although the treatment in the above case may have been successful, we cannot understand how the pterygoides internus could prevent the opening and closing of the jaw, as the function of that muscle is only to assist in its rotary motion. J. D. W.

For the Dental News Letter.

# CARIES NOT ARRESTED BY CONSOLIDATION OF THE DENTINAL TUBULI.

BY J. FOSTER FLAGG, D. D. S.

The position which I have taken, as indicated by the caption of this article, and supported in a contribution to the January number of the *News Letter*, having been noticed as a theory, and disputed by my friend, Prof. McQuillen, in a communication furnished the April number of the same periodical, I deem it not less a duty to myself than to my opponent, that I should review the grounds upon which I have been declared in error, and endeavor to establish the *fact* that what he has presumed to be a *fact* is no *fact* at all!

That the consolidation exists is undisputed; that it is the product of the pulp, and is the result of vital action dependent upon continued irritation, is admitted; and now, remaining in dispute, is simply the *object* which is attained by this particular effort on the part of nature. My opinion is, that its purpose is to preserve the vitality of the pulp for the greatest possible length of time, notwithstanding the progress of the disease, which must ultimately accomplish its destruction. Prof. McQuillen considers that it *arrests* the progress of decay; but without attempting to refute the course of reasoning which I have advanced as tending toward the formation of an opposite opinion, he commences at once by stating that teeth are not unfrequently presented to the dentist in which the progress of decay has been arrested by *an effort* of the *economy.*

This, of course, is undeniable, but here is just the point upon which the whole argument turns. That the caries has been arrested by an effort of the economy, I admit; but, that it has been arrested by the consolidation of the tubuli, I deny.

From Prof. McQuillen's description of appearances, immediately succeeding the statement above alluded to, it is easily perceived that he is referring to what has been designated by dental authors, "eburnated dentine," which is no more synonymous with that "tubular consolidation" spoken of by Mr. Tomes, than exostosis is synonymous with salivary calculus.

As is well known, the most frequent site of eburnated dentine is "in the molars and bicuspids upon their buccal, lingual, or palatine and masticating surfaces;" in short, at any point which is exposed to friction, and can be, by this means, kept in a *cleanly* and *polished* condition.

Tubular consolidation, on the contrary, is found most extensively and most beautifully developed in situations most protected from all external influences, other than those productive of caries. Upon an examination of cavities in which decay has been arrested by efforts on the part of the economy, different appearances are discoverable, even to the naked eye; the dentine around deep cavities, within which a peculiar condition of the saliva has given rise to extensive deposition of calculus, *being consolidated*, but, at the same time being even lighter in color than the dentine more contiguous to the pulp; while, in the more shallow cavities, *discoloration*, which is attributed to the action of substances taken into the mouth, such as food, tobacco, &c., and the *hardness* and *polish*, which are as generally, and I think as plausibly, attributed to the attrition consequent upon mastication, and the almost continual motion of the cheeks and tongue, afford us instances of that black and vitreous condition, known as "eburnated dentine." We find in these cases also the line of consolidation, which always accompanies caries; but to assert, or even for an instant to think, that the arrestation of decay was caused by this consolidation, seems to indicate at least the absence of proper reflection.

But again: we find this same eburnated dentine and this same consolidation in teeth which have been wasted away entirely by the friction of tooth against tooth, and in which *caries has never existed*, and therefore could not possibly have been *arrested;* and furthermore, as if to prove the utter falacy of the doctrine that consolidation arrests decay, we find it, as I have already intimated, most extensively exhibited around cavities in which we know the caries is progressive; and an extensive examination warrants my asserting that it is exceedingly rare, except in progressive caries, that we find the several distinct lines of consolidation mentioned by Mr. Tomes.

Professor McQuillen, after having spoken of the eburnation in which a high degree of rickets terminates, and remarking upon the increased liability to fracture induced thereby, says: "The change in the dentine is apparently without any drawbacks, and is eminently a reparative process, as in the majority of cases there is a complete arrestation of decay."

Now, so far from this being the case, the tubular consolidation of dentine does not produce the effect he would ascribe to it, in more than one case in one thousand, even granting that it does it at all; for, that it exists in every case of caries, may be proven by any one who will make a section of any carious tooth; and that I am within bounds when I say that in not more than one in one thousand cavities, is the progress of decay arrested by any effort of the economy, I think will be acknowledged by all dentists of extensive practice and long experience.

In conclusion, I would acknowledge that, in my own opinion, it were well for humanity, if it were the case that "consolidation" would arrest decay; but, on the other hand, it certainly is much better for dentists *that it does not;* for, were such the case, their occupation would most surely be entirely gone!

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For the Dental News Letter.

## TREATMENT OF THE DENTAL PULP.

BY J. D. WHITE.

In an inaugural Thesis for the degree of Doctor of Medicine, in the Jefferson Medical College, written in 1842, we have said all that we think is necessary in explanation of the principle upon which we regard this difficult subject to depend; still, much might be said in explanation, in detail. Nothing has transpired in our own practice, or in the practice of others, so far as we have had opportunity to see, to shake the confidence in the treatment there laid down. The subject seems, of late, to have elicited more attention on the part of the members of the profession, than it did at that time. We see, from time to time, in the journals, an attempt to elucidate it, but we think as often falls short of giving it explanation satisfactory to the young practitioner. Many operators, eminent in our art, never attempted at that time to adopt any treatment at all; either the tooth, so circumstanced, was condemned as lost, or it was plugged, regardless of principle, and left to the fates to work out its own salvation at the expense of punishment to the unhappy patient. Many methods have been adopted in the dark, having no principle to guide the operator, but the fortuitous termination of some random case. To our mind, there is a principle of disease or pathology controling the changes under which every organ of the body goes in any alienation from health, at least it is so regarded, and acted upon by practitioners of medicine and surgery, in relation to every other tissue of the human body, and we see no reason why the same principles or principle should not be discovered and relied upon in the treatment of the dental pulp, according to its peculiar characteristics in contrast with other organs of the body, as any other tissue. In looking over what has been called discussions on the dental pulp, before the conventions and societies of late years, each one engaged in those useful modes of imparting practical instruction, has a different way, and each one apparently equally successful, but none have attempted to describe a pathology of the treatment by which another may be governed, or explain on what principle he has succeeded. If one succeeds, another ought, under the same circumstances, or the circumstances of different cases cannot be traced by different operators, so that each one's result is but hap-hazard. Now we regard the treatment of the dental pulp, as certain as any other organ or tissue of the body, when in a state of disease, temperament, constitution, occupation and habits of life of the patient, taken into consideration. We regard an exposed pulp, as in a state of *irrecoverable disease*; it is only when it is *nearly*, not partially, exposed that it is treatable with a view to its preservation. We frequently, from our reluctance to extirpate a pulp, plug a tooth when a pulp is nearly exposed, and frequently are obliged to remove the plug and treat as if it had been exposed, even after having used medicating remedies, such as are frequently recommended. We find a pulp takes on a morbid action before the dentine is entirely decayed to it, whether the tooth be plugged or not; it is in these cases we are defeated spite of ourselves, or, in other words, when treatment with a view to preserving a pulp fails from constitutional or other cause, which we cannot judge of until it is too late. We never attempt to preserve a pulp when it is exposed; we immediately proceed to destroy its vitality and to extirpate it, and we should judge from the great number of cases which crowd upon us from our professional brethren, that it would save time, suffering and teeth, if they were more generally to adopt the same practice. Since soft "filling" has been adopted so much of late, and non-conductors, these cases have multiplied most wonderfully upon our hands. Many patients shrink from the destruction of an exposed pulp, but it is in ignorance of the consequences of attempting to save them, and under such circumstances, too many dentists lack the courage to pursue a different course. We surely have no love for destroying nerves; it is only from our own failures, and of our fellows in the profession to preserve them, that impels us to it. No tooth is in a condition to plug when its pulp is exposed, until it is destroyed and the dead parts removed and the tooth presents a comfortable condition. Hence, time must elapse between the removal of the pulp and the operation of plugging. We have long ago given a list of cases which we treated after they had been plugged over the pulps, to show how many we treated in a given time, but the reference to a few recent cases may not be out of place.

A delicate lady was referred to us, by a friend, who had resorted to our city to escape from the heat of a southern home, in great suffering from an exposed pulp in a superior first left molar, in a state of inflammation, and which had been plugged over by an eminent dentist in her native city, and one for whom we have the greatest veneration, and who formerly was in the habit of destroying nerves; we destroyed the pulp, removed it and obtained relief, but in a few days after, she returned to us again in great suffering, apparently in the same tooth. We examined the parts, but could discover nothing amiss about the tooth; but found, however, that the bicuspid adjoining had been plugged at the same time; we removed the plug and found that it had been plugged over the pulp also, but considerable softened dentine had been left in the bottom of the cavity; we exposed this pulp by removing the decay, and destroyed it, which afforded relief. These teeth had been plugged about four weeks, but the plug had fallen out of the molar before she had reached our city. The patient informed us that the dentist told her at the time of plugging it, that he had not much confidence in the plug remaining in long, as the tooth was too tender to plug very firmly. Surely, this was unsuccessful practice. The day after this patient first called on us, a strong and healthy gentleman was introduced to us by an eminent surgeon of our city and uncle to the lady patient, suffering from what he regarded as neuralgia, and for which he had consulted the surgeon referred to. The patient complained of severe pain diffused over the whole of the right side of the face and temple; it was paroxysmal. We found that the right superior first molar had been plugged for some months, and for a long time after plugging had been sensitive to cold substances, and it appeared to the patient as if something had wedged between it and the second bicuspid. We removed the plug, and after scraping over the bottom of the cavity of decay, the pulp commenced bleeding; the patient immediately remarked that "that was the place; I feel something giving way and I am relieved." This pulp was destroyed and a cure effected. This tooth had been plugged in the same city from which the first patient came, but by another dentist.

For the Dental News Letter.

## GALVANISM IN EXTRACTING TEETH.

Editors Dental News Letter:—I see in the *News Letter* for July, an article upon "The application of galvanism in the extraction of teeth." This process was patented in Canada, the 16th of March last, by your friend, Dr. Oliver, of Buffalo; he also applied for a patent in the United States; but by some delay or mistake in his papers, another obtained them before him; or, at least, so I have been told by the Doctor. If Dr. Oliver is the original inventor, but by unfair means has not been able to receive the patent, he at least deserves the credit, and I hope he will get it. I have an office-right for the use of it in Canada, and use it, invariably with the best results. Parties who have had teeth extracted with the use of the battery, say they would not have one extracted without it. The battery I use is "Davis and Kidder's Patent Magneto-electric Machine." I have small holes drilled in the end of my instruments, and apply a light current for a few seconds, before attempting to extract the tooth; for if a sufficient current be applied to deaden the pain instantaneously, the electricity would be as much, if not more, to bear than the pain of extracting the tooth without an agent; whereas, if it is applied very light, and increased gradually, a person can bear sufficient to have a tooth extracted without any inconvenience. This process will also work with good effect in surgical operations, and I think it will soon be adopted by all professions wherewith surgery is concerned.

I am, dear sirs, yours, truly,
G. W. HAWKE, Surgeon Dentist.

Hawkesville, Canada West.

For the Dental News Letter.

## OBITUARY.

Died, suddenly, July 12th, 1858, at his late residence, 141 North Tenth street, Philadelphia, THOMAS W. WALKER, D. D. S., aged twenty-eight years. It is with reflections of a peculiarly saddening character that we are called upon to pen this tribute to the memory of our departed friend. Dr. W., quite early in life, entered upon the study of Dentistry in this city. Since engaging in the more active duties of his profession he made rapid advances towards eminence, and more especially so, in that branch in which he most excelled and in which he so ardently and energetically labored—the mechanical and plastic department.

His prospects in life, indeed, bore to those around him the aspect of true brightness, and it may with verity be said of him, there is no one having practiced so short a time as he, whose position is prospectively more enviable than was his. He possessed in a marked degree those peculiar characteristics and personal attractions which fail not to command admiration as well as to inspire confidence with all whom he had intercourse. As a man, nay, indeed, as a *gentleman*, he was universally esteemed and highly honored. C.

For the Dental News Letter.

## TAKING IMPRESSIONS.

BY B. TROTTER, DENTIST, BRAMPTON, C. W.

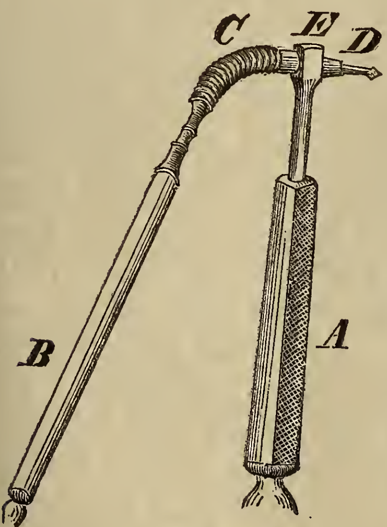
Messrs. Editors:—No doubt every dentist who has been in the habit of taking impressions, has observed that the suction in withdrawing them from the mouth is considerable, which must, necessarily, alter them. To obviate this trouble, I have used a simple plan, which has been of great benefit to me, and one which I never heard of. If you think it would be any benefit to the profession, I am most willing to make it known.

It is this:—Take a tube about an inch long, (a piece of a quill does very well,) make a hole for it through the impression cup, about the centre of the palate; put it through the cup on a level with the wax or plaster, and in pressing up, the quill will move with the wax or plaster, and keep on a level with the palatine surface. This method is sure to obviate all the difficulty of suction in withdrawing impressions.

We have used the plan named above long ago, and it is very good, as well as a thread laid across the wax, which answers very well. A blunt probe, passed through the wax to the gum in the roof of the mouth, or at several points, will answer as well as the tube.

J. D. W.

## MERRY'S DRILL STOCK.



A is the stationary handle of the instrument. B is the rotary handle, that by which the drill is turned. C is the spiral spring connecting the handle with the socket. D is the drill. E is the drill socket with its attachment to the permanent handle.

This drill stock will be better understood from our engraving, than it can be from any written or verbal description. The operator has as perfect control of the instrument, as he has of the common straight rotary drill. There is no complex machinery by which the drill is worked. It is turned by the fingers. That portion of the instrument which holds the drill being connected with the handle by a spiral spring, the drill can be made to work in any direction, by simply bending the spring. The drills are inserted into a common "taper socket." But the engraving is the best description we can give.—*Dental Register of the West.*

THE DENTAL NEWS LETTER.

OCTOBER, 1858.

## DENTAL EXHIBITIONS.

The period of the year is now approaching for the holding of Agricultural and other fairs, and which are right and useful in their way; to compare the results of the different methods of agriculture and of soil, is of the greatest importance to improvement. The fairs for the exhibition of mechanical productions cannot fail to suggest improvement, by each one seeing the results of another's skill, and the awarding of premiums to distinguished merit or superiority can do no harm; but, on the contrary, stimulate emulation; but to award premiums to *practical* dentists is an outrage upon society. The manufacturer of dental instruments, implements, or artificial teeth, for the dentist's use, *only* is a proper recipient of such testimonials. It is not the polish of the gold, nor the natural translucency of the artificial teeth, that constitutes the education of the dentist, and yet the excellence of these two things only can be judged of by such committees as are usually appointed as examiners and awarders of merit. The specimens of dental work usually on exhibition are made by young men who have just completed their studies in the laboratory. We would find no objection to awarding premiums under such circumstances, if its influence were to stop here—but men who resort to such means to obtain awards of merit have no scruples in offering their services to the public as properly educated dentists, and of the evils resulting from such a course the committees or institutions issuing such awards have no means of judging. There has sufficient practical knowledge come within the reach of our own observation during the last twenty years to condemn the whole matter for all time to come. It may be of temporary advantage to a dentist to receive a premium for his work, but the more intelligent mass of society do not regard such evidence as sufficient to employ him in their families. A few years ago, a dentist called to see us and wished us to send him patients; he exhibited his work to us and a *silver cup* which he had received at a State Agricultural Fair of a distant State. He was so very much flattered by this mark of distinction, that he exposed it to the public gaze, by putting it in a case with his work outside of his window. It so happened that the wife of the president of the State Fair referred to above, called upon us to get some operation done for herself and family. She told us that she saw by a show case in a window of a dentist in our city, a cup, with her husband's name on it, which had been awarded to him at their State Fair; we remarked to her that if she was satisfied with him we would send her to him as we were very busy. "Oh no, we could not think of doing so." We remarked that she ought to have confidence in their State Fair and its officers. "Yes, that is very true, but I always regard dentists who go to fairs as humbugs." There is no excuse for men now resorting to such means to obtain recommendations to public confidence. The dental profession and its institutions are competent and sufficient to recommend its members, if they are worthy, and if they are not, it is a false system for fairs of any kind to do so. They cannot judge of a dentist's general qualifications. Dentists have no reason now for offering their services to the public until they are properly educated, however excusable they may have been in the earlier history of our art. There are colleges for the proper training and education of students in our profession, and those who cannot obtain such proper instruction have no business to attempt to learn by the mischief they do to their unsuspecting patients, especially if they have no other evidence to offer but the silver cup or medal from an agricultural society. Every young man can at present adopt as correct methods of practice as an old practitioner, if he chooses to learn before he commences, and it is only the ignorant that attempt to take a short cut to public favor over the heads of the better learned in the profession. J. D. W.

*A want of Appreciation.*—A friend, who has been faithful in his attendance on the many dental conventions and meetings of societies—as all should be, who wish to keep posted up—related to us the following, during a sitting of the convention, a year since. The matter was brought to his mind by the character of the proceedings then in progress, viz.: descriptions of various peculiarly difficult operations in fillings, building up broken teeth, etc., to which some malicious fellow has given the term "*fancy dentistry.*"

He said that he was induced to try the experiment of building up a tooth upon a patient in whose mouth a first superior bicuspid was very much broken, the anterior proximate half being entirely gone, the eye tooth having been extracted some time previously, thus exposing the broken and decayed bicuspid very prominently. He represented to the lady that he could restore the tooth to its *original size and shape*, but that the operation would be a lengthy one and expensive, to all of which she made no objection, and he proceeded to prepare the tooth, or what was left of it, and to build up, working very earnestly and becoming quite elated as the case approached completion.

After properly filing, polishing, burnishing, etc., and having the filling completed to his entire satisfaction; with a pardonable pride at the beauty of the work, and in full expectation of receiving his "meed of praise," he handed the patient a glass, who, after a critical examination of the tooth, taking the different angles of view, looked up into his face, and to his utter amazement and dismay, remarked: "*You certainly don't expect me to go into the street with such a thing as that in my mouth.* Why, I will have everybody staring at me." All can, we think, "*phancy his phelinx.*" His pride was very much wounded at the want of appreciation on the part of the patient, and we doubt if he ever fully recovers from it.

*Moral.*—Be sure you know your patient thoroughly before attempting such an operation. J. R. M'C.

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[We make the following correction with pleasure.—Ed.]

To the Editors of the Dental News Letter—*Dear Sirs*:—In your very clear and ably-penned synopsis of the proceedings of the College of Dentists of England, gleaned from the *Quarterly Journal of Dental Science*, which appears in your last *News Letter*, I notice an error which I think of right should be corrected. At page 288, you say that the late officers of the College were favorable to the rejected terms of amalgamation. Whereas, the treasurer and six other members of the Council were entirely opposed to the terms. I was so myself, occupying the position of Honorable Secretary to the Council. Thus seven members of the last year's Council retained their seats. I am, dear sirs, yours most truly,

Samuel Lee Rymer.

North End, Croyden, England, August 26th, 1858.

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Indianapolis, August 1st, 1858.

At a meeting of the resident dentists of this city, held on the evening of the 18th ult., it was

*Resolved*, That the Dentists of the State generally, be invited to attend a Dental Convention, to be held in this city on the 28th day of December next, for the purpose of forming a State Dental Association.

A circular of invitation will be sent to all practising Dentists whose names and residence can be ascertained. All other competent practitioners are cordially invited, and earnestly solicited to attend. J. F. Johnston, *Chairman*.

G. C. North, *Secretary*.

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*See Cover*, for various advertisements of interest, including Dental Depot in Chicago, Improvement on Lathe, New Hand and Foot Lathe, Electro-Magnetic Process, Home for Invalids, Gold Leaf, etc.

*The New York Dental Journal. Edited by* FRANK H. NORTON and GEO. H. PERINE.—*July,* 1858.—*Vol.* 1, *No.* 1.—*Two dollars per annum.*—This is a handsome quarterly of sixty-four pages, well gotten up and well-filled. From the introductory—from which we have a hint as to our duties as journalists, and a part of which we append—we gather that the proprietors, true to their professional instincts, have discovered a *vacuum* which they propose to *fill;* or, in other words, a want which they design to supply, as follows:—

"The dental journalist who rightly pursues his profession, should keep before him two rules to govern his line of conduct as a publisher. First, to place before his readers an ample and correct resumé of the progress of the profession in the present; second, to endeavor, as far as in his power lies, to acquaint his readers with all that has transpired in the *past*, etc."

Again, "The first of these rules has been generally followed by the dental periodicals of this country; the second has been ignored. We propose to be guided by both."

We heartily wish this new claimant for professional favor a far more substantial support than was given to its predecessor in the same city.

J. R. M'C.

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*The Dental Reporter*, for August, contains much that will interest, in addition to condensed reports of the proceedings of the "Western Dental Society," and of the "American Dental Convention;" but we are sorry to see in it a paper which we cannot endorse, as it advocates a principle entirely repugnant to our feelings and convictions of right, and against which we must enter a protest. It is entitled "Extracting Teeth by Galvanism," signed "Jerome."

The writer, after giving the method of applying the agent, and reports of cases—as have been previously published—with descriptions of various kinds of batteries, winds up in the following extravagant spread-eagle style:—

"We learn that many are experimenting regardless of the patent, and we think the owners of the patent will find that they are engaged in rather unprofitable business. They may annoy some, but nine-tenths of the profession will use it without a right—*except that right which Almighty God and the spirit of our Republican institutions grants to every man—the pursuit of happiness, the acquisition of knowledge, and the use of such knowledge.*"

The sublimity and completeness of the italicized sentence (the italics are ours) would be greatly enhanced, we think, by the following amendments:—After the name of the Deity, (which we greatly regret to see in such connexion,) add the words "the Continental Congress." After the words "Republican Institutions," add, "and the Genius of

Filibusterism;" and at the close of the sentence, add that emphatic and popular endorsement, "That's So."

But, seriously, we submit to the intelligent reader, whether this same spirit of "*acquisition*," though exhibited in other forms, has not interfered materially with the liberty and the "*pursuit of happiness*" of many a man, by confining him in one of a certain class of *public institutions*. Notwithstanding we may sincerely regret and strongly discourage (as we do regret and discourage) this disposition to patent everything, still we must condemn such sentiments as the above, as erroneous and unjust in principle—in appropriating, without regard to ownership, that which the law recognises and protects as property—and this we do without any reference whatever to the particular case under discussion, but *on the abstract principle involved.*

J. R. M'C.

*American Dental Convention.*—For a copy of the proceedings of the last meeting of this association, we are indebted to the editors of the "Dental Register of the West," to whom we now return our thanks. We will add here, that there were several papers read before the Convention, which, for want of space, we are compelled to omit, but whose titles we append. "Remarks on the best means of securing good teeth, by J. Richardson;" and another on the same subject, by Dr. W. B. Ingersoll. "Address on artificial dentures, by Dr. J. Allen." "On Diseased Antrum, by Dr. Murray." J. R. M'C.

*The Dental Colleges.*—We are requested to state that the slight damage done by fire to the Infirmary Department of the Baltimore Dental College building, has been repaired, and that it will therefore be ready for both students and patients on the 1st of October.

We may add here, that the three colleges—Baltimore, Cincinnati and Philadelphia—are out with their annual announcements, all indicating a healthy condition, and that they are fully prepared for the coming season.

*Obituary.*—On the 21st of July, 1858, after a short illness, Dr. R. T. Reynolds, in the 47th year of his age.

The subject of this notice had been a resident of Philadelphia some fourteen years, during which time he had secured a large circle of friends and patrons, and was in the enjoyment of a fine practice, in the mechanical department of which he was peculiarly successful in the finish and beauty of his work. His loss will be greatly deplored by a large number of friends as well as relatives. M.

*A Lamentable Case.*—E. D. Hamner, D. D. S., of Columbia, Tenn., sends us the following lamentable case of ignorance:—

A man calls upon him, and after an exchange of civilities, seats himself and becomes perfectly silent, indicating by his countenance the pressure of some weighty matter upon his mental faculties. After a painfully prolonged silence, the visitor speaks:—"Have you any *file* to *spar?* (meaning foil to spare.) I have some, but cannot work it;" at the same time exhibiting some *gilder's leaf*, and remarking further, that he had considerable difficulty in condensing it; so much so, that he had concluded to anneal it, when, to his great surprise, it "burnt up," and asking why it should act so strangely. He received the desired information, why gilder's leaf would not answer to plug teeth.

Our correspondent proceeds to deplore the ignorance of the people on this subject, in giving employment to such quacks, and also to condemn, and very justly too, the course of some practitioners, who, for a fee of a few dollars, pretend to give full instructions, and to turn loose upon society those even less competent than themselves, to practice upon the ignorance of the people and to the detriment of the profession.

We add, that if dental colleges and dental conventions and societies will not correct these evils, then we are hopeless of any improvement; but we sincerely believe they will, though time may be required in accomplishing so desirable a work. J. R. M'C.

*Dr. W. H. McGrath*, dentist, formerly of Salem, New Jersey, has, we notice, been appointed U. S. Consul to Maranham, Brazil. We trust he may be as efficient as Consul as he was as dentist.

*Electricity as an Anæsthetic.*—In the Savannah *Journal of Medicine*, for July, we find an article on this subject, by Dr. F. Y. Clark, dentist, from which we make the following brief extracts:—

"As an anæsthetic, the virtue of this subtle fluid is as yet but little known. Since its introduction, (but a few months back,) it has taken rapid strides; and is now fast becoming the harbinger of that much dreaded operation—to which it seems peculiarly adapted—the extraction of teeth. * * * * * * * *

"The principle upon which electricity acts as an anæsthetic agent, is very simple, and what is most surprising about it is, that it has never been thought of, or brought to light before. This, however, may be owing to the many mystified theories in regard to its action upon the nervous system.

"It may be readily ascertained, by connection with a battery, that the members of the body which grasp the poles, are the only parts of the system which receive any perceptible shock. The fluid of course traverses the body, but its intensity becomes less and its quantity more by the number of nerves or conductors over which it has to pass.

What I mean may be very clearly and easily illustrated by the simple experiment of connecting one hand with the positive electrode, and then placing the finger of the other hand in a bowl of water highly charged by the negative pole. The finger thus placed, receives the same dead, benumbing sensation that the tooth does in coming in contact with the charged forceps.

"We know that if we make a simple circle by connecting the two electrodes of a battery with a very small wire, and then pass on the current, that the small wire, so placed, will instantly become ignited, because it cannot bear the intensity of the fluid. Thus it is with the finger or any similar member of the body; a current of electricity that would scarcely be felt in the system, would paralyze the finger. Thus, from simple facts we can understand how parts of the body can be benumbed or shocked, while in the body itself the cause is scarcely perceptible. It is, then, simply by making immediate use of the shock or paralyzing sensation produced by the charged forceps, that we are enabled to perform the operation of extracting teeth with comparatively little, and in most cases no pain.

"Certain animals, as the *Gymonotus Electrus Torpedo*, *Silurrus Electrus*, and several others, capture their victims, by paralyzing their nerves by electric shocks, from a peculiar battery with which nature has furnished them. Thus it will be seen that these animals have been practicing by instinct for generations, what man is just beginning to learn by art.

"Thus far we have used electricity in over fifty cases, and although now and then we have met with unsatisfactory results, yet, on the whole, we consider it far preferable, and much more applicable to the extraction of teeth, than anything we have tried. Besides, it is certainly better to make use of an agent—particularly in the operation of extracting teeth—that admits the free and full action of our senses, than to inhale a subtle fluid that robs us for the time of all knowledge, and the result of which remains as yet in doubt, even with the best of us. * * * * * * * * * * *

"Case 1.—Was a young lady who wished the second left superior bicuspid removed, in order to give room for the remaining teeth to form within the arch. We regulated the current as we thought would suit the system, and then extracted the tooth with apparently no pain. On interrogation, the patient observed that she felt no pain from the removal of the tooth, but that she felt the shock rather severe. No doubt in this case we had on a stronger current than needed.

"Case 2.—Mr. B. called according to appointment to have five fangs removed, in order to make room for artificial teeth. After regulating the current, &c., we commenced the operation, but found, on removing the first tooth, that we gave considerable pain. We then made the current much stronger, and removed the other four without, as the patient observed, giving the least pain.

"Case 3.—Was a negro boy sent from the country to have a tooth extracted. As this boy knew nothing about electricity or its use in extracting teeth, we thought it a good case to truly test its effect. We therefore requested him to take a strong hold of the chair arms—around one of which had been previously twisted one of the poles of the battery—and then extracted the tooth, after which he looked very much bewildered; and on asking him how it felt, he observed in true negro dialect: 'I no know how him feel massa, but him no feel like him pulling tooth, him feel more like him foot asleep.'

"Now, were we to write pages, we do not believe that we could as clearly express the real feeling that this fluid ought to produce in order to use it successfully, as did this boy in the above very expressive negroism." * * * * * *

*Mechanical Treatment of Irregularities of the Teeth.*—By Mr. Rymer.—"I have often seen the most unsatisfactory results of attempts at improvement upon irregular teeth, with ingeniously complicated pieces of metallic mechanism, but I have seldom seen failures where bone and wood have been the agents employed. In their use there need be no complicated machinery, as the following case will show. It is a case somewhat similar to the first example quoted by Mr. Gaine, and will suffice to illustrate the practice to which I give preference. Miss C——'s teeth presented this appearance; upper centrals forced inwards, biting within the lower centrals; the lower laterals inclining posteriorly so that the upper centrals were wedged between these teeth, when the mouth was shut. The upper laterals projected far over the lower teeth and lapped over the adjoining centrals. In the treatment of the case I fitted a bone plate to the upper jaw, covering the grinding surfaces and cutting edges of all the teeth; the outer, or masticating surface of the plate, being made to meet the bite of the lower teeth. This appliance of course prevented the teeth from closing; just sufficient space was left to allow the irregularities to be acted upon without hindrance from the opposing teeth. I now inserted short box-wood pegs (hickory is preferable,) in the plate immediately behind the central teeth. The dental arch being too contracted to allow of the laterals being placed in their right positions, I also fixed pegs behind the canines and first bicuspid. The plate was then secured in the mouth by means of silk ligatures attached to the second bicuspids. As is always necessary in these cases, I gave particular directions that the plate should on no account be removed. In two days the teeth had been pressed forward to the extent of the length of the pegs. This was, I need hardly observe, the result of the pressure caused by the lower teeth in mastication, etc.; the pegs acting on the inclined-plane principle. The plate was removed and longer pegs substituted for the central teeth; but the canines and bicuspids did not require these pegs, as the small extra space wanted for the laterals was already secured, so that the old pegs were allowed to remain merely in order to prevent the teeth regaining their former places.

"In another two days the front teeth had again been forced forward to the extent of the length of the second pegs. New ones were inserted with a similar result in due course, and in ten days the teeth overlapped the lower. Short slips of gold plate were then rivetted to the regulating piece just underneath the laterals, and bent outwards and upwards over them. The pressure upon the teeth was kept up laterally (from the central) and inwards, by merely bending the plates with the pliers every two or three days, in the direction the teeth were to take. As before stated, these teeth lapped over the central, and it is evident that the pressure just described would push them inwards in a twisted form, but to obviate this, pegs were inserted behind the inner projecting sides of the teeth. In less than a fortnight they had been made to take their proper positions in the dental arch."—*From proceedings of College of Dentists.—Quar. Jour. Dent. Science.*

## A CASE OF FRACTURE OF THE LOWER JAW, AT ITS NECK.

BY M. O. HEYDOCK, M. D., CHICAGO, ILL.

"I was called upon, the evening of the 21st of May, to see Mrs. B. F. H., who had, I was told, just been thrown from her carriage, and severely injured. Upon my arrival, I found that a fracture of the lower jaw constituted the only injury of a serious nature; the treatment of which is the subject of this paper.

"The fracture was evidently at the base of the left condyle; crepitus was very marked and distinct, and deformity arose from a swaying of the jaw to the left, owing, as I suppose, to the contraction of the pterygoid muscle. The fracture was easily reduced, the ordinary roller bandage applied, and cold water dressings ordered for the night. Upon calling the next morning, I found that soon after falling asleep, displacement had taken place, and it was in the same condition as at first. I now applied a pasteboard mould and the roller as securely as possible. The next morning I found that this had served the purpose during the day, yet during the sleep, displacement had again occurred, as in the previous night.

"I now, with the approval of Dr. Freen, who had seen the case with me, had a spring made, partially encircling the neck, having a pad at each extremity, making pressure upon the left ramus, and over the right articulation, hoping to counteract and overcome the action of the pterygoid muscle. This acted indifferently well, and was thrown aside. I now used, one after another, starch, binder's board, and straps, and during the ensuing ten days, almost every bandage I could find, approved by authors, or suggested by friends. But each and every one failed me, in my effort to retain the jaw in its place during the night, when voluntary control was lost in slumber. Two weeks had elapsed, displacement had occurred each and every night, crepitus was still as marked as ever, and pain, on motion, as great.

"The prospect was anything but encouraging; a false joint seemed not only a possibility, but a probability, unless, by some continuance, immobility could soon be obtained. I had exhausted my inventive resources in external appliances, and now made a careful examination of the teeth, to see, if from them I could not obtain some hint, which would assist me to accomplish the object I had in view. I observed that the upper central incisors were widely separated, and it occurred to me that advantage might in some way be taken of this peculiarity. A few hours elaborated the idea which had presented itself, and which was, with the modification to be hereafter mentioned, successfully carried out and executed.

"One idea suggested was, that a mould of the teeth of the lower jaw should be taken, running as far back as the molars, and from this a gold cap should be made, which should snugly fit, and be securely and firmly attached to the teeth by clasps or otherwise. To this cap, at the point of separation between the central incisors spoken of above, a fragment of gold was to be attached, which would, when the jaws were closed, pass up between these incisors, somewhat in the manner of a wedge. If I am understood, it will be seen, that if the cap retains its place, I have, by the wedge-like process, overcome the tendency to lateral displacement.

"I now called upon Dr. Allport, a dentist of our city, and stated my project to him. He suggested, that the pressure of the wedge, even though slight, and though not exerted during the day, while the jaw was under the control of the patient, might give rise to some soreness and irritation, if continued as long as the nature of the case demanded. He proposed to overcome this objection, by fitting a cap for the upper jaw, similar to that of the lower, into which the wedge should be inserted, thus distributing the pressure. The two caps were then to be secured together by a couple of slender bars, crossing from one cap to the other.

"Impressions were now taken in wax, and the caps made after the same manner as the plates made by dentists for artificial teeth. Upon placing the caps in position, it was found, as we anticipated, that the gold, operating as a foreign body, would not admit of a closure of the jaws. To obviate this, the opposing and infringing surfaces were cut away, exposing the crowns of all the teeth; thus permitting a close approximation of the jaws, and at the same time furnishing an outlet for the secretions which would naturally accumulate within the caps, and prove a source of annoyance and irritation.

"The relation one cap would bear to the other was ascertained, by placing them in position, and directing the patient to bite into a mass of softened wax, and while the caps were embedded in the wax, they were removed and secured in this relation, by bars crossing in the neighborhood of the canine teeth of each side.

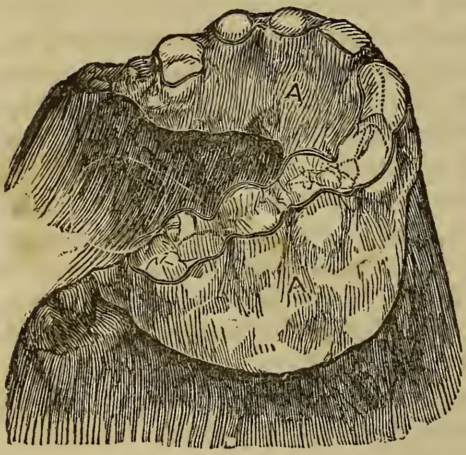
"Dr. Allport now suggested that a thin layer of gutta percha should be placed inside the caps, which might, by its presence as a lining, prove less irritating than the plates alone; while, at the same time, it would more perfectly adapt itself to the inequalities of the surfaces, than the metal. This, after being softened in hot water, was placed within the caps, and then placed 'in situ,' while it was soft and pliable, and as hot as could well be borne. The patient was then directed to shut the jaw naturally, and it was then firmly pressed home and immovably fixed.

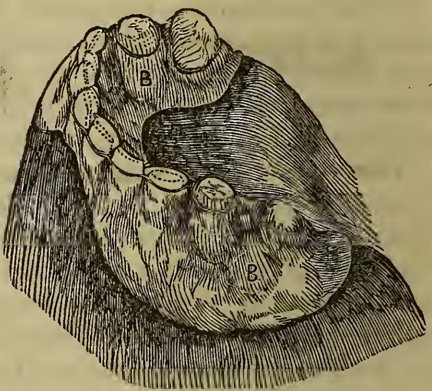
"I applied the roller bandage at night for a week or so, to guard against any possibility of displacement from fright or other cause, though there seemed to be little occasion for it, for voluntary motion even was lost to the patient. The natural projection of the upper teeth over the lower, combined with the slight separation of the jaws, caused by the caps, gave ample opportunity for the ingress of soups and slops, by which the patient was nourished and supported, until the removal of the caps.

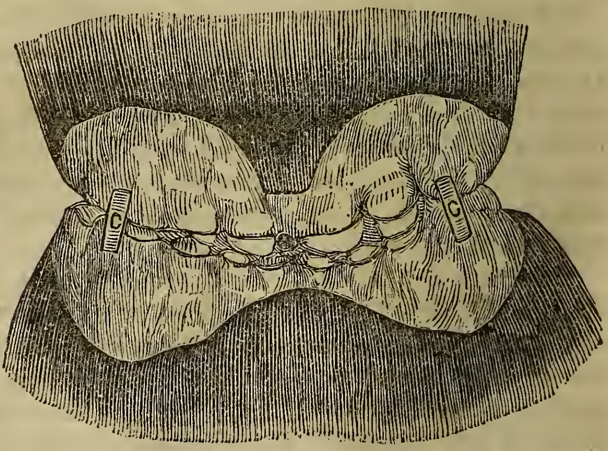
"During the first two weeks, considerable pain was experienced in the neighborhood of the fracture, and at the expiration of that time, the provisional callus was perceptible through the tissues. Four weeks having elapsed from the day in which the caps were applied, and six from the date of the fracture, they were removed, and union found to be complete. For the first few days, the articulating surfaces of the teeth did not readily coalesce, but at the end of a fortnight, the recovery was perfect and satisfactory in every particular. There was, upon removing the caps, some soreness of the mucous membrane, but this rapidly subsided, under the use of an astringent gargle, combined with chlorate of potash.

"As a general rule, fractures of the jaw are easily treated, the roller, pasteboard and starch proving sufficient. But in this case they were of no service in restraining the lateral motion, and until this experience, I confess I was not aware how difficult a thing it was to control that movement. I certainly gave them a fair trial, for Fergusson tells us in his work on surgery, that he "does not take particular pains about the bandages, after the fifteenth day," while in this case two weeks elapsed without any perceptible change for the better; nor was there any promise that there would be, if the same course was continued for a longer period.

"In closing, I would say that it is not of course to be expected that in all fractures of this nature, the incisors will be found conveniently separated, and admitting of an application of just such a contrivance as this. But this report will have accomplished its errand, if from it any one shall have obtained a hint, assisting him to control the lateral movement of the jaw. A thing which, like many things else untried, seems to the uninitiated simplicity itself, while in fact it gives rise to an anxiety and "vexation of spirits" not dreampt of in their philosophy.







A A represents the two caps.
C C the cross connecting them.
B the wedge passing between the incisors and hidden within the cap.

*Chicago Medical Journal.*

# THE DENTAL NEWS LETTER.

Vol. XII. PHILADELPHIA, JANUARY, 1859. No. 2.

For the Dental News Letter.

## DISEASES OF THE GUMS.

BY J. D. WHITE.

We have observed for many years a kind of disease of the gums which we cannot reconcile with the usual description of diseases of this tissue.

*Diagnosis.*—The margins of the gums present a reddened and somewhat swollen appearance, with the curd-like exudations of pultaceous inflammations of the mouth, or in the usual forms of stomatitis; but it is more deep-seated, with sloughing of the festoons of the gums that dip between the teeth. Sometimes the gums slough to a considerable extent; they also become detached from the teeth and hang loosely around them, secreting a bloody purulent and fœtid matter; the parts seem to present a gangrenous character when the disease first makes its appearance, with spontaneous bleeding, with loss of substance of the gums. Unlike aphthous stomatitis, although it is sometimes associated with it, it may be scorbutic, or it is more probably a class of gangrenous inflammation of the mouth. See *Dunglison's Practice of Medicine*, vol. I., p. 33.

*Causes.*—As far as we are able to judge, it is not confined to any class of persons, although we have seen it more frequently in adults; we have also seen it oftener in the spring and early part of summer. It also attacks some persons periodically, who seem to be in good health. We have been in the habit of attributing it to an excess of animal diet and want of fresh air and out-door exercise. We have treated a number of cases for persons who have depended upon a restaurant diet, from their places of business not being convenient to their homes. We know that a similar scourge is a common affliction in public establishments for children, or where a large number of persons are associated together. But we refer the student to the books for those diseases, as they do not concern the dentist.

*Treatment.*—It might be said here, what has the dentist to do with these cases if they be not dependent entirely upon the teeth ? As it is not always associated with tartar, or decayed teeth—we would answer that the majority of cases that come to us have already been under the hands of medical practitioners. We do not mean to say that medical men cannot treat them better than we, but it is a matter of surprise that they ever fall into our hands, and what we write is for the dentist when he meets with like cases, under the same circumstances. We wish it distinctly understood that we do not claim the right, nor is it our duty to seek medical practice ; it is as much as we can do to properly discharge our dental duties. But there is a place where dental practice overlaps that of medicine and where medical practice overlaps that of dentistry. We think that medical men ought to know more about the mouth and its diseases, teeth and gums, and that dentists ought to know more about general medicine and surgery than they usually do, and it is our humble opinion that the more they are informed on each other's branches the less will they encroach on each other. We are not speaking of those isolated cases where the medical practitioner or the dentist is obliged to act the variety store and supply all the wants of a neighborhood. We see a great many patients who, for the good of their *teeth*, we send to the doctor, and in like manner, intelligent medical men send their patients for the good of their *bodies* to the dentists. We are constantly called in consultation in this way. But that we should treat all the medical and surgical cases that fall in our way simply because we know how, or from fear of acknowledging inferiority to the medical man, or lower or sacrifice our dignity, is too absurd. In the past history of our profession many dentists of fair medical education have honestly, as a duty, treated every disease that fell in their way, both medically and surgically, but doubtless this error will disappear, as our proper sphere is understood. Of course, we have nothing to offer in the treatment of the disease referred to but what we have drawn from what is already known to medical practitioners, and doubtless the error occurs by the medical man considering it of too local a character and dependent upon the teeth, to require his attention, and the uninformed dentist knowing nothing about it, the patient falls between them. A case in explanation, which occurred to us last spring—a gentleman, about forty years of age, a free liver and in general good health, was attacked with bleeding of the gums, with some soreness, and fœtor of the breath. He applied to his family physician, who ordered cathartics and a restricted diet, but after a month's treatment he was no better. He then applied to us, and we found the gums in a sloughing condition, and, for want of cleanliness during the soreness of the gums, considerable sediment had accumulated about the teeth, which kept up the irritation, doubtless, spite of systemic treatment. We cleansed the teeth, touched the gums with the chloride of zinc on a camel's hair brush and ordered

℞.—Chlorate of Potash, - - ʒi.
Aqua, - - - ʒvi.

A tablespoonfull taken three times per day, between meals, restored his diet, and in one week the case was entirely cured. This patient had not been under the use of mercury. Another case occurred a short time since—a young man about twenty years of age, applied to us suffering with great soreness of the whole mouth, gangrenous ulcerations of the gums and aphthous sores on the lips and cheeks; we ordered the above formula exhibited internally and

℞.—Argent Nitrat. - - grij.
Aqua, - - - - ℥j.
Acid Nitric, - - gtti.

to be used as a mouth wash, three times per day, the gums to be washed off with this preparation with a soft sponge; he experienced considerable pain and supposed it originated from his teeth, but they proved to have been sound. We have touched the sore spots with a stick of caustic, but it did not act so favorably as the weak solution. There is sufficient evidence among medical practitioners to show that the chlorate of potash has a peculiar influence in correcting the morbid condition of mucous surfaces, and this affection, doubtless, is due to a deranged condition of the alimentary canal, or, perhaps, a deterioration of the blood, as it does not readily yield to local treatment.

We see by the November number of the *North American Medico-Chirurgical Review*, that Dr. Gallagher, of the hospital, Pittsburg, uses successfully in *mercurial stomatitis*, ten grains of the chlorate of potash, dissolved in a tablespoonfull of cold water, three or four times a day, according to the severity of the affection; and should there be ulceration of any portion of the mucous membrane of the mouth, a weak solution of the salt is to be applied to the denuded part several times a day. The cure is generally accomplished in a few days.

We might add much on this matter, but we leave it, soliciting the attention of the profession to the subject.

For the Dental News Letter.

# TREATMENT OF THE DENTAL PULP AND ITS EXTIRPATION BY THE GALVANIC BATTERY.

Messrs. Editors Dental News Letter :—The subject upon which I am about to enter, is not yet exhausted, although much has been said for and against it. Well, enough, for it has only elicited the more attention, and brought to light many facts, which would otherwise have remained unnoticed. The agitation of a question is the only sure method of arriving at a healthy conclusion, or freeing it of its gross superfluities and imperfections.

The extirpation of the dental pulp is daily becoming more and more a settled practice ; the opposition of many of the profession to the contrary, notwithstanding. That it can be successfully accomplished, is no longer doubted by that portion who are willing to spend the time a case demands. When the vitality of a nerve is destroyed, extirpate *every portion from the roots*, so that not a *particle* of the *dead membrane* is left ; it may cause *suppuration.* This is the secret of success. How can we expect the tooth and adjacent parts to remain healthy, if the point where the dead nerve was cut off runs into ulceration ? Will filling the fangs to their points, stop a discharge, as is held by many of the faculty ? They say, that filling the roots to their extremities, the discharge will be so slight, that it will be absorbed by the capillaries as fast as formed. This is unfounded. If the roots are discharging, they will never do to fill ; for it is evident the result will be an aggravation of the ulceration. Every one knows that if there be a discharge from an ulcerating surface, in any other part of the body, the more it is pent up, the more resistance it offers ; and the very confinement excites a more energetic action in the already abnormal tissue, to secrete the more, *and not to cause absorption.* It needs no argument to convince, when you once view it in a surgical light. This is the reason why so many have practiced, and complain of their want of success, and still they go on groping in the dark. Knowing that this was bad practice, why have they not made that search to enable them and others to more successfully relieve pain, and save the natural organs ? Do not doubt but some one has ; but, if so, is afraid to come out boldly and proclaim it, for fear that every one will claim the same. It appears there can scarcely be any thing new published, but somebody else has done the same thing long ago, and been using it in private. For this they should receive no credit.

Although *young* in practice, I take the above position, and know upon it depends our whole success in the preparation of nerve cases. Another's practice may have been the same, yet I have not seen it avowed in any of the journals. I have seen plenty of articles on filling to the extremity of the roots, allowing the accumulation to be so slight, that the absorbents would take it up; but this is not the thing. There can be no absorption of pus—there is no need of it where the case is properly treated. There must be no ulceration. If so, it must be stopped before filling, or else it will be of no use. It looks so to me, and certainly is unreasonable to say otherwise. Like many others, with whom I'm not ashamed to be ranked in this particular, I have been taught by experience—necessity which knows no previous law.

What has always been taught me, and I have understood, is this, that it has been considered in every case of killing a nerve and extracting it, that there is more or less ulceration of necessity from the excised surface, and, as I said before, that by filling the nerve cavity to the terminus, the accumulation being slight, the absorbents would carry it off as rapidly as formed.

After the parts are deadened by arsenic, or any other escharotic, they must be cut off from the main body of nerves and taken out, and then if the remaining parts heal, as in other surgical excisions of the body, without ulceration, the cavities may be filled, and not the least discharge of pus will take place ever after. The wounded vessels having healed, it is impossible they should remain otherwise than normal, as if the nerve had never been diseased. On the other hand, suppose the nerve has not been extirpated, and there is a slight discharge, is it proper to fill—taking it for granted, as we have all been alike tutored to consider, that the quantity is so slight, it will be absorbed, simply because the fang is stopped to the extremity, as if the same would not be the result, *had the pulp cavity not been filled*, but *simply the crown?* This will not make *that difference* if there is the disposition of the part to secrete. In all unsuccessful cases then, for there are many, and no one who has ever attempted it can deny, is not the fault in the reckless filling of the cavities when there was deadened nerve or discharge remaining? Yes! most surely. If there be no suppuration at the time of filling, do we fear this result? All can promptly answer to this, No! Then it is apparent, the fault is ours, in not persevering and fully extirpating the deadened pulp, and healing the wounded part by proper applications. It being our fault, do not say that it makes no difference if there is a discharge, for it is not so. Where the ulcerating surface of an old tooth (a great many at least) can be touched with the dry nitrate of silver, or chloride of zinc, to cause sloughing, and removing from the cavity any dead matter, they may be restored. By placing a portion of the dry nitrate in the tooth, first making dry the decayed cavity, but leaving slight moisture or fluid in the pulp cavity, that it may take up the pulverized nitrate, deposit it at the diseased extremity and it will do its duty at that spot. After the application, stop with solution gum sandrac, to prevent external moisture. This mode of using the nitrate is far more certain than by injection. All this you may say requires time and patience, but it requires more skill than for extraction, because it can so easily be replaced by an artificial substitute. As to pay for our trouble, no one will complain at any reasonable price for having saved rather than extracted the offender.

A stop should be put to such a general demolition, which I fear is as great at present as it was in our profession's infancy. Since the battery has been applied to "extraction without pain," I greatly fear the more. It appears it is most successful in those very cases where there is no ulceration or sufficient change in the tissues, but what might be restored by extracting the nerve and filling, an operation causing no more pain than the extracting the tooth. Where there is much inflammation of the peri-dental membrane the battery will not prevent its paining, and in most such cases of high excitement, it is not proper to extract, as it would only aggravate the symptoms and inflammation would terminate the same.

Let the battery and other means be resorted to for extraction only in those cases where the patient obstinately desires it, and where the mouth is being prepared for an artificial substitute.

A few words in regard to my mode (I claim to have been the first) of removing the dental pulp by the galvanic battery, and I have done.

So far as I have tried it, as well as another *dental member* whom I informed, I have been successful in almost every case; it is really invaluable and far preferable to all other modes. No real pain is perceptible, save the unpleasantness of the current. However, the pain is so lessened, that not one out of a hundred would refuse to have it done by this method. There are certain states of the system rendering it uncertain, in the present knowledge of its application, but in the majority of cases no pain is felt. And another grand point is gained, no sub-acute inflammation follows as in the use of arsenic. The incised pulp heals by "first intention," as in the majority of other incised wounds of the body. I have now tried it so often and found it successful, I fear not to give it to the world.

If in excavating a cavity the nerve is laid bare, or nearly so, extricate it at once, and not resort to *capping*. From its application not the least difficulty is to be apprehended; make use of the battery and all is over in a few minutes. The pulp bleeds freely, but soon subsides, and in a few days thereafter is ready for filling. It is no doubt safer to wait than fill immediately.

There is more certainty of removing all the pulp this way than after the use of arsenic, for the parts are more coherent, and once the broach takes hold of it, the whole must come.

As great care should be observed in filling the root in this, as in other modes, in placing the first pieces of gold in so that no air will be condensed between it and the extremity of the fang, or that it be not pushed too far. The former is more to be dreaded than the latter, for very few ever fill to the end of the root. The consequence, soreness, is sometimes the result, from the prolonged pressure on the tooth; not from the accumulation of fluids, as many would have us believe. This is easily relieved by the application of chloroform to the adjacent gum, or, which is far better, the tincture of capsicum, as it stimulates peculiarly to itself without excoriating. Having failed in but few instances in the treatment, and in the extirpation by the battery, I feel confident in giving it to others, being assured the result will be satisfactory when judiciously applied, and *the pulp entirely* extirpated, which must in all cases be done, or there is certainly no benefit from the operation.

The broach to be made use of in extirpating a nerve, should be ot *screw-shape* at the point, instead of having the point simply turned at right angles. When it is first inserted, by several turns, the nerve becomes entangled, and is more apt to be drawn entirely out the first time. This shape can be easily given them by flattening the point and filing it very thin and giving it too or three twists, afterwards making it as small as you like, by the use of a fine file, as it can be done more easily before twisting. The point is all that need have this form.

Having written more to agitate the subject than otherwise, and to bring the practice nearer perfection, I trust it will, in part, be the means of bringing to light something from others who are more experienced in the profession, thereby enabling all to retain rather than to *extract* for every exposed lining membrane. Yours fraternally,

WM. G. A. BONWILL.

Dover, Del., Nov. 1st, 1858.

## PROCEEDINGS OF THE PENNSYLVANIA ASSOCIATION OF DENTAL SURGEONS.

From the minute book we are enabled to make up the following digest of the proceedings of the Association:—

At the annual meeting held October 5th, 1858, the following officers were elected for the ensuing year:—

President, Dr. S. Dillingham; Vice President, Dr. T. L. Buckingham; Secretary, George T. Barker; Treasurer, Dr. J. F. Flagg; Librarian, Dr. C. N. Peirce.

Several important resolutions were offered, discussed and laid over till next stated meeting.

A special meeting of the Association was held October 14th, 1858, in reference to the decease of Dr. E. Townsend.

On motion of Dr. Fouche, a committee was appointed to prepare resolutions expressive of the feelings of the Society, on the decease of their late fellow member, which committee reported as follows:—

*Whereas*, It has pleased an all-wise Providence to remove from amongst us our much esteemed and highly honored fellow member, Dr. Elisha Townsend. Be it therefore

*Resolved*, That this Association do most sincerely condole in the irreparable loss it has sustained in the death of so able and eminent a practitioner.

*Resolved*, That the members of this Association will wear the usual badge of mourning for thirty days, as a testimony of the profound respect they entertain for the memory of the deceased.

*Resolved*, That the members attend in a body the funeral of Dr. Townsend, and that a copy of the proceedings of this meeting be communicated to the family of the deceased; and also, that they be published in the daily city papers.

W. W. FOUCHE,
T. L. BUCKINGHAM, } *Committee.*
J. R. MCCURDY,

Drs. Buckingham, McCurdy, McQuillen, Garretson and J. F. Flagg spoke of their long acquaintance and connection with deceased—of their respect and admiration for him as a gentleman and a practitioner—of the interest which he ever felt in the advancement of our profession, and his untiring efforts to place the dental college upon a firm and solid foundation. Each speaker could recall acts of kindness and encouragement when young in the profession; and each could say, we have indeed lost one whose place will never be filled—whose devotion to the cause we may ever wish to emulate.

Special meeting October 19, 1858.—Dr. J. M. Harris presented for discussion, "The influence of the deciduous upon the permanent teeth, and also upon the constitution." The discussion was participated in by Drs. McQuillen, Harris, Suesserott, Pierce, Fouche, Buckingham and Barker.

The testimony of most of these gentlemen was, that the action of diseased deciduous teeth was not directly upon the permanent ones, but through the agency of the secretions, they becoming vitiated, the constitution thereby suffering, and in this manner involving the permanent set.

Two of the speakers thought that the deciduous teeth rarely affect the permanent ones directly, yet believe that when alveolar abscess occurs, and the surrounding parts are involved, that then a deleterious influence may be excited upon the permanent, and they in turn suffer from diseased action.

Dr. Harris could recall cases where half the crowns were denuded of enamel, which he could distinctly trace to a constitutional disease at the time of their presentation.

Dr. McQuillen had noticed the effect of scarlatina and other diseases upon the permanent teeth, and believed the effect to be wholly due to the vitiated secretions.

Dr. Pierce had seen cases where the temporary were bad, and the permanent good, and believed the effect to be due to the food of the mother being deficient in phosphates and carbonates, and could remember a case where some of the teeth were entirely devoid of enamel, which he believed was owing to the food of the mother.

Dr. Suesserott was of opinion that what would affect the permanent membrane would likewise affect the permanent teeth, and had seen cases where the diseased action was, he believed, hereditary.

After further remarks by Drs. Fouche, Buckingham and Barker, Dr. McQuillen offered a subject for discussion at next meeting.

At the monthly meeting, November 16, 1858, the subject for discussion was that offered at previous meeting by Dr. McQuillen, as follows: "The influence that the teeth exert through the instrumentality of the fifth pair of nerves in the development of various affections of the head and other parts of the body."

The discussion was opened by Dr. McQuillen, who described the fifth pair as being likened to a spinal nerve, having an anterior and a posterior root, also a ganglionic expansion, both sensory and moter branches, and being intimately connected with other parts of the body, through the medium of the great sympathetic system. Attention was particularly called to the relation that the fifth pair bore in the development of that affection called tic douloureux, or facial neuralgia, and a case was related where facial paralysis and severe amaurosis had been developed by means of exposure of branches of the fifth pair, distributed to the teeth. The influence which they exert in producing disease at the time of dentition, was alluded to, and a case related, which occurred in the doctor's own family, of severe gastric difficulty being induced by pressure during dentition.

Dr. J. Foster Flagg related several cases of neuralgia, his treatment and successful results.

Dr. Harris spoke of cerebral difficulty, induced by irritation of the fifth pair, and alluded to the action and the attention bestowed upon this subject by the managers of Lunatic Asylums.

Dr. Fouche related a case of ophthalmia, induced by pressure of a filling—absorption having taken place between the pulp and filling.

Dr. Peirce spoke of facial neuralgia, the result of gastric derangement, and was followed by Dr. Suesserott on the same subject.

The meeting was also addressed by Drs. Garretson, Buckingham and Gildea, and the medical profession taken to task for the little attention given by them to this important subject.

A paper on the "Causes, Nature and Treatment of Neuralgia," by George F. Barker, was now read, and after a spirited discussion on exostosis, adjourned.

Stated meeting held December 7, 1858.—The Committee on Galvanism made the following report, which, on motion, was adopted.

Mr. President:—The committee appointed by the Association to investigate the merits of applying the galvanic current in the extraction of teeth, would beg leave to report, that they have attended to the duty assigned them.

Immediately after their appointment, the members of the committee were furnished with galvanic batteries, and instructed how the current should be employed, by the agent of the patentee. These batteries have been used, and the instructions followed by the committee in their investigations. Desirous of arriving at an impartial and unbiased opinion, and believing that this could only be obtained from a somewhat lengthened series of experiments, the committee have permitted several months to elapse before presenting their report.

Their experience, which has been gained in *private practice*, has varied from time to time. At one period, certain members were disposed to believe that they recognized in the application of the galvanic current, all that had been claimed for it, and all that had been said in its favor; but a later experience and more careful observation convinced them to the contrary. They have found that although in a certain proportion of cases they have had evident alleviation of suffering, and in some the assurance that the operation has been absolutely painless, yet that in the majority of instances, the pain of extraction has been unmitigated, and in some cases the application has been denounced as productive of the most excruciating suffering.

With the view of ascertaining how far galvanism was instrumental in alleviating suffering, the operator, when engaged in extracting a number of teeth for one individual, would occasionally intermit the current without apprising the patient of the fact. On being questioned relative to the sensations experienced, the answers were frequently, though not always, the same as when the current was perfectly established.

Therefore, while your committee does not feel warranted in positively condemning the use of the galvanic current, as an anæsthetic agent in the extraction of teeth, they cannot, in justice to their convictions, give it that commendation which it has received from the hands of others.

Having discharged their duty, your committee would respectfully request to be dismissed from further consideration of the subject.

J. H. McQuillen,
J. Foster Flagg,
T. L. Buckingham,
Jas. E. Garretson,
C. N. Peirce.

On ballot, Drs. D. H. Goodwillie and James Truman were elected members.

Dr. McQuillen reported contributions to the amount of twenty-one dollars to Library Fund.

On motion, the resolution offered at previous stated meeting, as follows: "Resolved, that in addition to present qualifications for membership of this Association, the gentlemen applying must either have a medical or dental diploma," was now called up, which was amended by dropping the word "medical," making the qualification rest only on dental diploma. This resolution elicited a pretty warm discussion, and was spoken to by Drs. Flagg and McQuillen, in favor, and S. Roberts, W. W. Fouche, Buckingham and Barker against.

These gentlemen in favor argued that there was necessity for taking such a position in furtherance of the interests and advancement of the profession, and that such a measure was particularly well calculated to elevate the standard of professional excellence as well as add greatly to the usefulness of the Association.

Those in the negative thought the time had not come for such a measure; that it was premature, and in some sense calculated to wound the feelings, and to reflect upon many members who were not graduates, beside exciting the animosity of the profession not in connection with the Society, and in keeping out persons who would be an acquisition to it.

After a pretty lengthy and able discussion, the resolution, on being put to vote, was lost.

On motion of Dr. McQuillen, it was *Resolved*, That fifty dollars per annum be appropriated by this Association to the Library Fund.

On motion of Dr. Peirce, it was *Resolved*, That a committee be appointed to procure a charter, under the name of the "Pennsylvania Association of Dental Surgeons."

On motion, the following resolution, offered by Dr. McQuillen at the stated meeting in October, was now called up, discussed and carried:—

*Resolved*, That two or more members of this Association be elected delegates to the American Dental Convention, with instructions to suggest the expediency of the Convention becoming a delegative body, composed of representatives from the State and County Dental Associations throughout the Union.

Adjourned. M.

For the Dental News Letter.

## REPAIRING CONTINUOUS GUM WORK.

Messrs Editors:—To repair a case of the continuous gum work, that has been worn for any length of time, and to avoid that very unpleasant but very frequent result, the cracking of the body and even the teeth, I adopt the following method:

First remove the body which has surrounded the teeth broken off, either by means of the stone or by clipping off with a small hammer, or other convenient tool, and insert new teeth in the space occupied by the old ones—use your own judgment about grinding off the gum, as I deem it of no great importance whether you grind it off or not. After making a preparation of asbestos, subjected to a red heat of two hours' duration in a closed muffle, which, when cooled, pulverize in a mortar and mix with alcohol to the consistency of cream, apply to the teeth and gum or to the body from which the old gum has been ground, and dry by igniting the alcohol. Then take a mixture of plaster of Paris and water and apply over this to the thickness of a quarter of an inch, and when nearly set, imbed the case in plaster and asbestos, as for a new set, (preferring the powdered asbestos, since it makes a much harder coating and resists much better the action of the fire than the floss.) Then line, solder and apply the band to the teeth—this done, remove the coating for applying the body and gum.

By this method, there is no *unpleasant* noises during the heating up. The teeth are not etched, nor has the gum bubbled. The body does not crack, but is as hard and compact as it was before imbedding it in plaster.

Yours truly,

Ambler Tees.

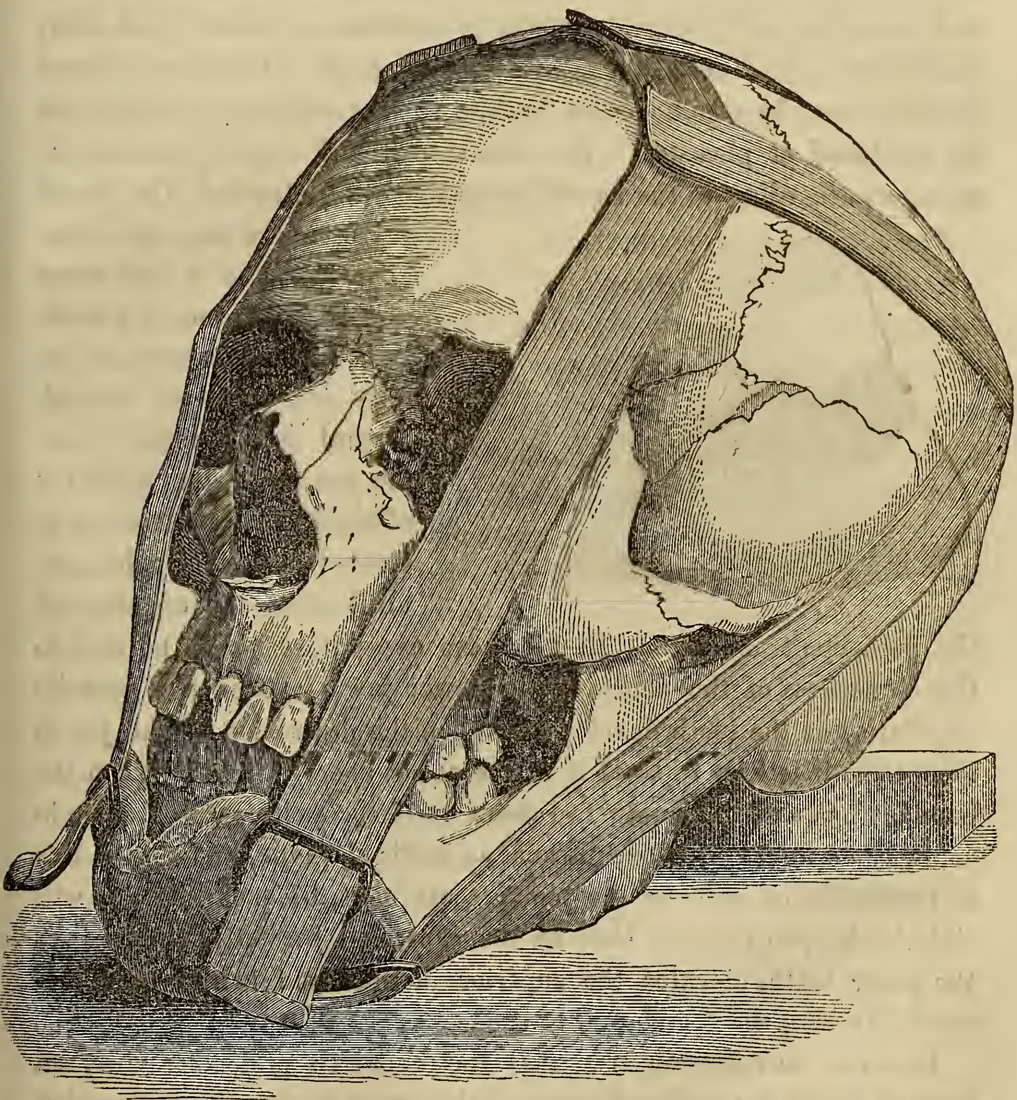
New York, December, 1858.

For the Dental News Letter.

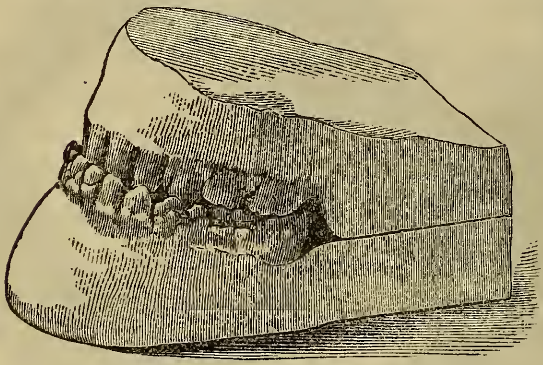
# PROJECTION OF THE LOWER JAW.

BY J. D. WHITE.

This deformity, which is so common at present, ought to be well understood and as much light thrown on it as possible. In many cases it belongs to families, but it is more frequently the result of a mal-articulation of the teeth, and this latter cause is nearly if not always occasioned by the premature loss of some of the teeth. Of course we are not speaking of the projection of old age, which is due to the obtuseness of the angle of the inferior maxillary. Cut No. 1 represents the kind of bandage used as a general rule for its correction. We are in the habit of obtaining a cast of the chin with plaster of Paris, we then place over the cast a coat of wax about a quarter of



an inch in thickness, or else the plate would be too small for the chin when it is padded. We now make counter castings in the same manner as we would for swedging plates for teeth. We use German silver, or thick tin, letting the plate cover the chin far enough on each side, and above and below, so as to form a kind of shoe for it. This plate must be padded full a quarter of an inch thick on the inside and merely covered with some kind of strong cloth outside; to this, two elastic bandages must be fastened, one extended around and over the head a little posterior to the parietal protuberances, and the other over the coronal region; now these two strips must be fastened together by three others, one corresponding to the sagittal suture and the other two over the parietal protuberances, one on each side; this makes a kind of crib bandage for the head. These strips near the chin must be supplied with buckles so that the whole bandage can be tightened at pleasure. The elastic material must be weaker or stronger, according to the age of the patient to be treated. Cut No. 2 represents a case of a boy about six and a half years of age, and is one of a family in which the same deformity has occurred through several generations. This boy has two sisters similarly affected; the eldest we have treated successfully, but not until after the eruption of the permanent incisors. In all these cases it seems to be due to the obtuseness of the angle of the lower jaw; it does not gain its angularity as the teeth develope. When the protrusion of the jaw is ideopathic it is best to treat it at five or six years of age. When the bandage has caused the jaw to retract until the incisor teeth come in contact, we interpose between them an inclined plane, and regard this as preferable to caps on the molar teeth, first, because the jaw will slide back upon it better than on the caps, and secondly, it depresses the lower teeth, elevates the superior incisors and brings them forward, favoring the completion of the case.



It is not unfrequently true that the underjaw projects unduly on account of the extraction of some of the upper teeth: the contraction of the upper jaw takes place and the lower teeth loose their hold upon the upper, and then the jaw shoots forward, partly by the angle of the jaw not being maintained, and partly by a partial luxation; this may occur on one or both sides as it is favored by the side on which the patient is accustomed to masticate, or from relaxation of the capsular ligaments. In some cases, where the projection of the lower jaw has been caused by the contraction of the upper teeth, we have extracted two or more lower teeth and forced the rest back until they have fallen behind the uppers. Doubtless, every one is aware that a full set of artificial teeth may be placed in the mouth which articulates properly, but in a short time the lower teeth will be found projecting far beyond the upper. We had a case of this kind last spring and placed a full set of artificial teeth in the mouth of a patient about thirty years of age, and in six weeks after, the lower jaw was a quarter of an inch beyond the upper; this we found to be due to the condyles of the lower jaw slipping forward upon the emminentia articularis; we treated this case by a bandage such as above described, and by resetting the teeth. When the mouth of the patient was opened and closed by pressure, the condyle was heard to slip in and out of the glenoid cavity. Another case, of a lady about fifty years of age, where we placed a set of teeth in the mouth which articulated properly at the time, and in three weeks the case projected outwards and to the right, a full quarter of an inch; we had to reset the teeth. This seemed to have been brought about by masticating altogether on one side. There was a case sent to us from a distant city of a young man about twenty years of age who had the first large molar extracted, left side; in a short time the upper jaw contracted, caused the teeth to fall behind the lower ones and the lower jaw shot forward and to the left, causing partial dislocation of the right condyle, and upon gaping it became complete. We extracted the first inferior bicuspids and pressed back the rest of the front teeth of the lower jaw, and used the bandage and the inclined plane. It is a matter of astonishment to see how many persons have lower jaws projecting and where upper lips fall in from the injudicious extraction of the teeth, and how many think it is all perfectly natural.

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For the Dental News Letter.

## CARIES ARRESTED BY CONSOLIDATION OF THE DENTINAL TUBULI.

BY J. H. M'QUILLEN.

In a communication from my friend Dr. J. Foster Flagg, published in the last number of the *Dental News Letter*, he labors under the erroneous impression, that the article contributed by me on Tubular

Consolidation, was written expressly to refute his own views on that subject, published in the January number of the *News Letter* for 1858. So far from this being the case, the subject matter of my article was read by appointment before the Pennsylvania Association of Dental Surgeons, at the discussional meeting held on the third Tuesday in January, 1857: one year prior to the publication of his paper, and before I knew what his views were on that topic. The minutes of the Association bear the record of this fact.

After reading Dr. Flagg's article, and finding positions assumed in it diametrically opposed to the results of my own experience and observation, I determined to publish the article read before the Association. Before sending it to the press, however, I made a slight addition to the original draft, opposing the theoretical position, that reducing dentine in the scale of vitality by the increased deposit of inorganic matter, is calculated to facilitate rather than retard or arrest the progress of decay.

This position I then objected to, and still continue to do so, from the conviction, that the higher a tissue is in the scale of vitality the greater the liability to disease, and the greater the recuperative power; whilst, on the other hand, in a tissue lower in the scale of vitality, the liability to diseased action is decreased in an inverse proportion, and along with it the recuperative force. Thus, mucous membrane, a highly vascular tissue, is prone from very slight exciting causes to assume an abnormal condition; its great recuperative power, however, enables it to combat energetically the progress and to efficiently repair the results of diseased action. Bone, much less vascular, on the contrary, is slow to take on disease, and when established, the recuperative action is slight in comparison with that of the former tissue. Descending lower in the scale of vital tissues, we come to dentine. And here I feel that I hazard nothing in asserting, that the same law which controls the other tissues of the organism holds good in this instance. At the same time that the recuperative power of dentine is less than that of bone, the liability to disease, other things being equal, is also less. In proof of this, if bone, instead of being protected by tegumentary tissues, was exposed to the same influences that operate upon enamel and dentine, it would assume more quickly than either an abnormal condition.

If "the only action which would be potent to prevent further destruction of the tooth substances, would be the elevation of that substance to a degree of vitality, which would render it capable of resisting its destroyer through that agency alone," is a fact; why is it that enamel proves such an excellent envelope to the dentine? And why is it, that the teeth of children decay so much more rapidly than those of persons further advanced in years? Certainly they contain a greater proportion of animal matter, and are, therefore, more highly organized.

To show how much I have been led astray in my observations, and to prove, as he delicately suggests, "the absence of proper reflection" on my part, Dr. Flagg endeavors to define the difference between what he calls "eburnated dentine" and "tubular consolidation." In this effort, he has succeeded in establishing in the most logical and conclusive manner, a distinction that has no difference.

"Tubular consolidation," I understand as the obliteration of the dentinal tubuli, by a deposit of inorganic matter within their parieties; and eburnation, when applied to dentine, as an increased density of the tissue induced by the presence of an excess of inorganic matter; in other words, meaning one and the same thing. I question, however, the propriety of applying this term to the changed condition of dentine, as it is derived from the Latin root, ebur, ivory, and means converted or made into ivory. Now, dentine (a name given to tooth substance only a few years back, by Prof. Owen,) is but another term for ivory. Eburnated dentine, therefore, literally means ivory converted into ivory.

Rokitansky, Virchow, Paget and other writers on pathological anatomy, have applied the term "eburnated" to the very dense condition that is frequently presented in bones that have recovered from rickets and other osseous affections characterized by extreme hardness, brittleness and the leaf-like splitting of their fractured surface. When minutely examined, the Haversian canals are found very small. Approaching, as bone does under such circumstances, the texture of ivory, there is a manifest propriety in applying "eburnated" to it. Affixing it to a changed condition of dentine, is, however, a questionable proceedure; the tissue was ivory before the change occurred; increasing its density cannot, with propriety, be regarded as converting it into ivory.

Notwithstanding all this, and though I have found the tubuli in the *blackened* dentine completely obliterated under the microscope, if it affords Dr. Flagg more satisfaction to apply eburnated to that condition, it is perfectly agreeable to me, as he acknowledges the fact, that decay is arrested under such circumstances.

For the Dental News Letter.

## INSULATING THE FORCEPS IN THE USE OF GALVANISM.

Dear Sirs :—I see by the reports of those who have used electricity in extracting teeth, that all use a glove or something of that kind. Now every dentist will find on his work-bench as good an insulator as he can desire. I coat my forceps, except the inside of beaks, with *gum shellac varnish.* Two or three coats give them a beautiful bronzed appearance, and none of the electricity is lost through coming in contact with the lips or gums, or through the hand of the operator. Respectfully, S. E. Benson.

Bangor, Me.

The above plan has been practiced here for some time, and is a good one, the only objection being the liability of the gum to fracture or scale off by a blow, as may occur in laying the instruments down among others.—Ed.

* * *

Through the kind attentions of a correspondent, we are enabled to give the following items of interest in relation to current dental movements in England.—Ed.

## COLLEGE OF DENTISTS OF ENGLAND.

In the last number of the *News Letter,* we gave the proposed regulations relating to candidates for the diploma of membership of the College of Dentists of England. These regulations have since been confirmed upon submission to the members, 76 of whom voted unreservedly for them, 5 against, and 3 were partially in their favor.

The first ordinary meeting of the third session was held at the College Lecture Room, Cavendish Square, on October 5th, when an interesting paper was read by Mr. Harrington, on Cast Aluminium as a base for Artificial Teeth. Mr. Harrington has used aluminium successfully in the construction of plates, and he explained his method of working it. He has taken out a patent for his plan and grants licenses for £10 10s. per annum—but dental patents are generally discouraged by the profession in England.

At the second ordinary meeting, November 2d, a paper was read by Mr. R. Thompson, in which he explained an invention which he had perfected for striking up plates. A model of the invention was exhibited. It consists of a massive iron pedestal, upon which two upright rods, some five feet high, are fixed, above the rods is a wheel, over which a rope to which a heavy weight or hammer is attached, the latter upon being released slides down between the rods and falls upon the work placed in position below. By an ingenious arrangement of details, this machine appears to work admirably.

A course of twelve lectures was commenced on November 9th, by Dr. B. W. Richardson, (the eminent author of the Astley Cooper prize essay, on the Cause of the Coagulation of the Blood,) on "The Medical History and Treatment of certain diseases of the Teeth and the adjacent structures."

The first two lectures have already been delivered and were treated with consummate ability. We append the syllabus of the course.

*A course of twelve lectures, on "The Medical History of Certain Diseasis of the Teeth and Adjacent Structures." The lectures will be delivered on the undermentioned evenings, at* 8 *o'clock precisely :*

Lecture I.—November 9th, 1858.—Introductory.—The Constitutional and General Causes of certain Diseases of the Teeth and the adjacent Structures.

Lecture II.—November 16th.—The Hæmorrhagic Diathesis in its bearings on Dental Practice.

Lecture III.—November 23d.—Neuralgia in relation to Toothache and diseases of the Teeth.

Lecture IV.—November 30th.—Hysteria and allied conditions, in reference to some forms of Dental Affection.

Lecture V.—December 14th.—Dyspepsia, Rheumatism and Gout, in relation to some abnormal states of the Teeth and neighboring organs.

Lecture VI.—December 21st.—Diseases of Infancy and of Childhood as dependent on, and as influencing Dentition.

Lecture VII.—December 28th.—Purulent Affections of the Gums and adjacent Structures.

Lecture VIII.—January 11th, 1859.—The Pathological and General History of Exostosis, Necrosis and Caries.

Lecture IX.—January 18th.—The History of malignant diseases, involving the Organs of Mastication.

Lecture X.—January 25th.—Diseases of the Teeth and Maxilla arising from the administration of Mercury, Phosphorus, Lead and other poisons.

Lecture XI.—February 8th.—On diet and modes of life in their influence on the Organs of Mastication.

Lecture XII.—February 15th.—On Chloroform and the Narcotic remedial series, their Physiological action, and their applications to Dental Practice.

It is satisfactory to know that Dr. Richardson intends to publish these lectures in a complete and separate form, although, by his permission, it is understood they will previously be published in the *Dental Review.*

*Professional Literature in England.*—We believe that the *Quarterly Journal of Dental Science* will issue its last number on Jan. 1st, and that a new monthly publication " the *Dental Review*" will appear on the same day, backed by the interest of the *Quarterly Journal.*

For the Dental News Letter.

## REPORT OF THE EXECUTIVE COMMITTEE.

The Executive Committee appointed at the last " American Dental Convention," would respectfully report the following as the order of business for the next Convention, which is to be held at Niagara Falls on the first Tuesday in August, 1859, at 10 o'clock, A. M.

1. Reading and correcting report of the last meeting. 2. Treasurer's report. 3. Report of Committees. 4. Election of Officers. 5. The retiring President's address. 6. Installation of Officers. 7. Appointing Committees.

### DISCUSSIONS.

1. When and under what circumstances should teeth be extracted, to secure a correct development of the permanent teeth?
2. Mechanical appliances and forces to correct irregularities of the teeth.
3. Under what circumstances and in what manner should teeth be filed to remove superficial decay; or, preparatory to filling, to leave them the most secure from future decay?
4. Filling teeth.
5. Mechanical dentistry.
6. Treatment of diseases of the antrum.
7. Professional intercourse.
8. Miscellaneous.

The reading of original Essays on the various topics under discussion will be first in order under their appropriate heads.

The committee would respectfully suggest to all who expect to be present, the benefit, as well as the *propriety*, of preparing notes (to be read before the Convention) of their experience and observation on the various subjects named for discussion. Let the notes be carefully prepared—*short and to the point.* In this way a large amount of valuable information may be collected for publication, and thus be put on record for the benefit of the profession at large.

W. W. Allport, Frank Fuller,
W. M. Wright, A. M. Leslie.
W. D. Stone,

# THE DENTAL NEWS LETTER.

JANUARY, 1859.

## DENTAL WRITERS.

Perhaps there is no class of writers who disagree so much, with regard to opinions on a specialty, as dental authors. In running the mind's eye over the past, it is remarkable to see how many writers have expressed positive opinions with regard to the best mode of practice; and yet they have changed so much, that one would think their articles come from authors of different ages. This is owing to the too hasty expression of opinion, with regard to the theory and practice, which time and observation has not fully verified.

There seems to be a peculiar sanguine temperament running through the character of the dentist. We must leave it to better hands than ours to account for this. At one time, we will find that a dentist will declare that a certain preparation of gold is the all in all—it is perfection, and that all intelligent practitioners must and will adopt it. But before the Journal has reached the uttermost ends of its circulation, another article on a different kind of preparation is urged with as much confidence and positive opinion as the first. Now, all this dampens the courage of the student, and, as far as it becomes known to the public, destroys confidence in the reliability of our art.

We are not perfectionists, and, consequently, do not give our views to the world in as strong and positive terms as some are in the habit of doing; nor do we wish any one to believe that our views cannot be refuted by others, or changed by time or the more matured experience of older observers.

We make these remarks with a view to suggest some points by which Journal-writers may be governed. First, if a dentist believes he has made an improvement in any department of practice, or has discovered something new, that he will give the fact to his profession without much comment, that others may help to verify his discovery or improvement, and the final settlement of the point be left to the combined judgment of the mass instead of the probable bias of his own opinion, and do not set every one down who does not applaud or adopt it, as blind, stupid, or behind the age. We have had, in the history of our art, many humiliating instances of such practitioners having been obliged to yield to the test of time. Secondly, state the facts plainly and concisely; they will be much more valued by an inquiring profession. Our art is too open to improvement yet, to suppose that any practice is too well founded to be past change. We are aware that many valuable suggestions might be made, through the Journals, by modest but able practitioners, but they are withheld because they do not wish to be placed on the opposite page to a boaster or egotist. This of course is, in a measure, a false position, as it is the duty of every one whose practice and private studies has made his views valuable to mankind, to give them to the world for the use of the humble inquirer—the world has a claim upon him, being engaged in a benevolent profession which far outweighs his personal pride. There is another class who, when the arduous toils of the daily office duties are done, sinks into a kind of relaxing pleasures or amusements—they never advance beyond their first probationary studies. At their hands a great deal is required. It is not fulfilling the high duties of their calling. We would say to such, devote a portion of your valuable time to instructing others in what you know, as your profession will live when you are gone. Thirdly, there is a class of young practitioners who are aspiring, and warm in their feelings for their professions' good, and aim to do something for their own and its distinction; but they not unfrequently allow their feelings to outstrip their experience, and commit themselves, by selecting the most difficult topics for discussion. They think they must select a good subject to ensure a good article. This is not so. In inexperienced hands, the best subjects often end in the most unsuccessful results; and if they do not meet with the anticipated applause, they become discouraged, and early in life abandon the most laudable part of their pursuit.

A simple subject, well handled, makes the best article. In learning to write, an old adage applies well here, "Make haste slowly." The most polished and elaborate articles are not always the most instructive. Advance your facts as plainly as possible, and then, suggestions, rather than opinions; if it draws attention from others, it will aid you in your conclusions. A simply stated tale, with a breath of earnestness about it, will command more respect and attention than a strained or boasted recital of some unprecedented success or improvement.

J. D. W.

*New Items.*—On cover will be found a notice of withdrawal of agency, and enlargement of depot in Chicago, and other matters of interest.

*Died*, October 13th, 1858, Dr. Elisha Townsend, in the 54th year of his age.

Perhaps there never was, in the ranks of the dental profession, one more highly respected and beloved, both for his professional ability and social qualities, and whose death has occasioned so much regret, as the subject of this notice. Surely, we never met one in the profession for whom we could entertain more affection, or whose death we could more earnestly mourn and deplore.

In the winter of 1856–'7 he was stricken down by an attack of typhoid fever, from which, after a long illness, he slowly but only partially recovered, yet his earnestness in the cause of dental progress, led him to meet the American Dental Convention, (a creation of his own, and to whom alone belongs all the honor of its origin,) at its session in Boston, in August, 1857. All at that meeting will well remember his cheerful face and many social qualities, and his hearty co-operation in the proceedings of the convention.

In March, of '58, he went to Georgia, also to Florida, to avoid the inclement season at home, and, if possible, to regain his strength, but returned without any material improvement, and in June last, at the suggestion and in the company of a friend, he made a trip to Europe, but got no further than London. While there we received two letters from him, in which, though very hopeful, he wrote, "I am no better yet." The proposition of a united meeting of the American and English dentists in London, as made in our journal, met his hearty concurrence and support, and in furtherance of its accomplishment, he had introduced the subject to many prominent in the profession there, and, consequently, this project occupied the larger part of his letters to us.

After a very short stay in England, during which he received the kindest attentions from the profession there, and finding that instead of gaining he was losing ground, he determined upon a return home, without any such intimation to his friends, and one day, in the latter part of the summer—the day after his arrival—we were astonished at a visit from him, and then, for the first time, did we apprehend a serious termination to his sickness—that he had come home to die.

The trip abroad, with its many exposures, and the absence of suitable diet and those little comforts so necessary and grateful to one in his weak condition, had told upon him, greatly emaciating and weakening his system. In but a few days after his return, he was confined to the house, then to his bed, where he lingered and suffered for some two months, when death, so much desired and so patiently waited for, came to his relief, and with all possible peace and calmness his spirit passed away.

Though he rests from his labors, *his works do follow him.*

We had hoped to have been able to give in this number a full and carefully prepared "memoir" of the deceased, but the gentleman in whose hands the matter was placed—an old and intimate acquaintance, and one, than whom there is none more competent for such a work—was unfortunately unable to prepare it in season for us, but gives us the assurance that it shall be in time for our April number.

We append here the following expressive resolutions, and would refer also to the action of the Society, which will be found on another page. J. R. M'C.

At a meeting of the Faculty of the Pennsylvania College of Dental Surgery, held October 19th, 1858, the following resolutions, presented by Dr. McQuillen, were unanimously adopted:

*Resolved*, That we have heard, with profound emotion, of the decease of our late eminent and distinguished colleague, Professor Elisha Townsend, whose uniform courtesy and affability endeared him to us as an associate, whilst his abilities as a practitioner and teacher commanded our unqualified respect.

*Resolved*, That throughout a long career, during which he enjoyed a most enviable position in the estimation of the profession and the community; and cherished a constant and deep interest in the advancement of the former; he contributed largely by the soundness of his judgment, the high order of his practice, and the elevated tone of his sentiments, in raising its standard to the position occupied at present.

*Resolved*, That the active and prominent part he maintained, and the sacrifices he made for years to advance the interests of the dental profession, justly entitle his memory to the grateful consideration of every practitioner.

*Resolved*, That we tender to his widow in her bereavement our deep heartfelt sympathies.

*Resolved*, That a copy of these resolutions be communicated to the widow, and the dental magazines be furnished with copies for publication. T. L. BUCKINGHAM, *Dean*.

*The Principles and Practice of Dental Surgery.—By Chapin A. Harris, M. D., D. D. S.—Seventh Edition. Enlarged and Improved. Philad., Lindsay & Blakiston, pp.* 892.—Here is a new, and the seventh edition of this standard work. From the preface we learn that "nearly every page has been carefully revised, and additions have been introduced throughout the entire work; three new chapters and a number of illustrative cuts have also been added."

This work, so well and favorably known, requires no eulogy, and the simple announcement of the publication of a new edition is a that need be made to insure a rapid sale. In comparing the *first* with the *seventh* edition of this book, we have been struck with the advances that have been made by the dental profession in comparatively so few years. Its rapid and healthy growth is shown by the book itself. At the date of the first edition, a very modest sized work sufficed to chronicle chiefly all the then well settled facts in principle, and the general but limited modes of practice; now a massive tome is scarcely sufficient for the purpose.

The general revisions and extensive additions made to each respective edition of the book, show plainly the rapid and continued growth and progress of our profession. There is much that is peculiarly gratifying and instructive in such a retrospect which is here only merely hinted at. M'C.

We are happy to acknowledge the receipt of a specimen of ossific union of the teeth, from Mr. J. N. Davenport, of Haydenville, Mass. It consists of a second superior molar, posterior root uniting with the neck of the third molar. We have a specimen of the same kind, which was sent to us some years ago. We have frequently seen the same thing, but more frequently where the crowns united whilst the teeth were forming. The second molar in both the cases appeared to have fallen forwards and downwards, so that their roots came in contact with the roots near the necks of the wisdom teeth, and the irritation induced by the contact caused cementum to be thrown out, and the teeth sealed together in the same way that anchylosis takes place in bones of similar character. Some persons suppose that anchylosis takes place between the dentine and the alveolus; this is not so, or, at least, we would be happy to see a case of the kind. J. D. W.

*Dental Hospital in London.*—We are informed by circular of the establishment of an institution of this kind in London, and which is to be supported by voluntary contributions. From the circular we learn that "The Dental Hospital of London is founded for the purpose of affording to the poor generally the means of obtaining gratuitous relief and advice in such cases as are included in the special practice of dental surgery; and also for affording an opportunity of instruction to those who enter the dental profession." It is "open every morning, from nine to eleven o'clock, Sundays excepted." The list of officers comprise a very large number of gentlemen, including six prominent practicing dentists as dental surgeons. M'C.

*Cincinnati Dental Lamp.—Edited by J. M. Brown. Vol.* 1. *No.* 1.—*November*, 1858.—This is another quarterly, apparently well designed to be "a 'lamp' to our feet, and a light to our path," in the laudable effort to obtain the many things needful in the practice of our profession. It opens well, its leading article on "Dental Progress" being a pleasant and profitable review of the profession—its advances and accomplishments in the different branches—mechanical and surgical. This is followed by other interesting papers, all of which should commend it to the attention of the profession. It is neatly gotten up with clear type and good paper, and altogether makes a very handsome appearance. We take it for granted that it is a *safety* "*Lamp*," and that it will be found useful in every dental office.

M'C.

*Obituary.*—We are called upon to announce the decease of Dr. P. D. Stokes, of Savannah, Georgia, after a brief illness, from yellow fever, on September 15th, 1858. He had been in practice, we are informed, some six years, and gave promise of great usefulness in his profession. His death has thrown a gloom over a large number of friends and acquaintances.

For the Dental News Letter.

## AMERICAN DENTISTRY ABROAD.

The good name which has been gained for our art abroad, has not been sustained by all who have followed those who aided in raising it to distinction. We constantly have complaints made to us by those who have suffered from an ill-placed confidence. An English gentleman went from London to Paris to avail himself of the services of an American dentist. He had a number of fillings of *American amalgam* put in his teeth—the cavities were all *too large* to be filled with gold—among the number an eye-tooth was plugged with amalgam after having had the nerve destroyed: the root was plugged with a *stick of wood*, and the cavity of decay with amalgam. In six weeks from the time of the operation the tooth decayed and the amalgam fell out.

The patient called upon us: we removed the *stick* and plugged the root and crown cavity with gold. More than a year has elapsed, and the case is still in as good condition as when we left it. Eight dollars had been charged for this operation, being an extortion. Will not American dentists abroad try to preserve our good name? J. D. W.

[The following we deem of sufficient importance to give entire, as it is an instructive paper, as well as a clear and satisfactory answer to a communication made to the American Dental Convention, at its session held in Boston in August, 1857, and which was afterwards published by its author in the New York *Tribune*, where we find the following.

It would have appeared in our October issue, but for the length of the proceedings of the meeting of the Convention, held at Cincinnati. —Ed.]

## HOW THE TEETH ARE DESTROYED.—BANEFUL EFFECTS OF SALERATUS AND CREAM OF TARTAR.

To the Editor of the New York Tribune—*Sir:*—The above is the title of an article which appeared in the *Daily Tribune* of June 1st, copied from the Portsmouth (N. H.) *Journal.*

"The author, a Mr. Baker, (whether doctor, dentist or divine does not appear,) thus commences his essay:—'As a subject generally interesting and important to the public, I venture to offer some views of my own and others in regard to the articles that head this communication.'

"This subject is indeed an important one, in any point of view, interesting every individual in every community, when considered simply with reference to the teeth; but if the views entertained by Mr. Baker, as set forth in his article, are correct, it is preeminently so, for he not only contends that these substances, which are in general use in cookery, are universal tooth destroyers, but that they are also equally active in undermining the general health, nay, that 'they are both *acrid poisons.*'

"But as the article in question was evidently written to show 'how the teeth are destroyed,' I shall confine my review to the dental branch of the subject, leaving the rest to be settled by the various interested parties along the line—from the baker to the undertaker. In reference then to the 'baneful effects of saleratus and cream of tartar' upon the teeth, and to which Mr. Baker unhesitatingly ascribes their premature destruction in this country, I will say that, after having carefully read his article and examined his alleged facts, I have yet to see in them the first shadow of proof in support of his remarkable theory.

"Before entering, however, upon any direct examination of this subject, as it will appear in the light of *facts* and science, I beg leave to enter my protest against the author's mode of reasoning upon any scientific subject. The first item of evidence which he offers to sustain his position is the following quotation from the 'popular work' of Mrs. Stowe:—'How comes it that our married ladies dwindle, fade and grow thin—their noses incline to sharpness, and their elbows to angularity, &c., at a certain period of their lives?' As a matter of merest conjecture, she adds: 'Have not our close-heated stove rooms something to do with it? Have not the immense amount of hot biscuits, hot corn cakes and other compounds, got up with the acrid poisons of saleratus, something to do with it?'

"Now, what assistance this quotation can afford Mr. Baker, in establishing his theory of dental caries, I am at a loss to determine, and I think it will puzzle him to point out any special connection between 'angular elbows,' 'sharp noses' and decayed teeth, unless he reverses his reasoning, and makes the first two consequent upon the last. But had this conjecture of Mrs. Stowe pointed directly to the teeth, instead of the nose, it would still have been conjecture and nothing else, and entitled to no more weight than any other conjecture from a lady of though great general intelligence, yet not even professing to have any knowledge of this specific topic.

"Questions so purely scientific are not to be settled by the dictum or the opinion, much less by the conjecture, of persons however talented or learned in other matters, but who may be profoundly ignorant of this special department of science; and the practice, which is quite too common, of quoting the opinions of eminent persons, merely because of their eminence, cannot be too strongly deprecated. The world is full and running over with senseless dogmas and prejudices which obtained their footing in this way, and which depend for the influence which they exert, wholly upon their eminent origin.

"The next witness introduced by Mr. Baker speaks more directly to the point, and is no less a man than the editor of the Boston *Transcript*. He gives it as his positive *opinion* that it is cream of tartar, carbonate of soda and saleratus 'which is the cause of our young men and women having decayed teeth.' Will this gentleman, who is so ready with an *opinion*, inform us *how* these articles ruin teeth—whether by direct effect upon these organs, acting upon them while in the mouth, on their way to the stomach? or are they taken up by the circulating fluids, and act upon the teeth through the general system? Will he inform us why these two substances, an acid and an alkali, are always used in connection in cooking, and what is the result of this combination?

"If our friend is as expert in the chemical laboratory as in the editorial chair, he will find, by mixing in proper quantities, cream of tartar with either carbonate of soda or saleratus, that the result will be a neutral compound, which is as inert, so far as the teeth are concerned, as so much chalk. He will find, that because the component parts of a compound are acrid in their nature, it by no means follows that the compound is so, or that it partakes in the least degree of the character of either constituent. Plaster of Paris, for example, is composed of lime and sulphuric acid, (oil of vitriol,) and while neither of its elements can be taken into the mouth or stomach without the most serious consequences, the compound is wholly inert and harmless. If he extends his examination to the composition and structure of the teeth themselves, he will conclude that, if these articles injure the teeth at all, their 'baneful effects' must be exerted directly; for finding, as he will, that the enamel is made up, for all practical purposes, solely of mineral matter, and has not the slightest circulation, he will conclude that this portion of the tooth (which is the surrounding and shield to all the rest) is neither capable of benefit nor injury through the medium of the circulation. When his examination is directed to the *bone* of the tooth, underneath the enamel, he will find that the chances for reaching its substance through any vessels with which this structure is endowed, not to be materially enhanced, for the circulation of the blood in the bone of a tooth is so slight as to require extraordinary circumstances to prove its existence. But even supposing it possible to communicate into the substance of the *bone* of a tooth this 'baneful effect of saleratus, &c.,' so as to produce decay, what follows? Where would the decay be found? Evidently *on the inside* of the tooth, under the enamel. In other words, it would be an example of *internal* decay, thus involving a theory long since discarded by every intelligent dentist. If he extend his investigations still further, he will find the universal law of the system to be, that those parts which are the most vascular, are the most liable to be affected through the agency of the circulation; and as the bones of the general system are a thousand times more vascular than tooth-bone, the former (upon the above theory) we would naturally expect to find, in the same ratio, more subject to disease; whereas, for every case of carious bone, of the general system, we find ten thousand cases of carious teeth. In short, after he had investigated the entire subject so thoroughly as to be qualified to give an opinion which might be safely adopted by the public generally, he doubtless could and would give some better grounds for it than the only one offered by him, viz.: 'that the French eat less saleratus than we do, and the French have better teeth; ergo, saleratus destroys our teeth.' Would it not be equally good logic to say, the French drink less bad whiskey than we do, and the French have sounder teeth; ergo, bad whiskey is what destroys our teeth?

"Mr. Baker also quotes the opinion of several doctors, to the effect that a number of students of Williamstown were made sick by eating warm biscuits and puddings, 'so filled with saleratus as not only to give them a yellow or burnt appearance, but also to render them brittle and nauseous to the taste.' This witness further states, that 'after thus living for a few *months*, a disease broke out, which was so severe, that many believed it to be contagious.' Upon this case no comment is necessary, and why it is lugged into an article whose aim is to show that saleratus destroys the teeth, I shall leave the reader to conjecture. But Mr. Baker, himself, does not seem quite satisfied with the testimony above referred to, and hence he, as he informs us, has resorted to experiment. Now, this is doing something in the right direction—far better than to quote the opinion or conjecture of those who cannot be supposed to have any special knowledge upon this difficult subject. He says, 'I subjected a handful of teeth to a strong and warm solution of saleratus for about fourteen days; the consequence was, they became as brittle as burnt bones. At the same time, I subjected some to a solution of cream of tartar; the consequence was not the same, but equally if not more injurious.' Now, admitting the 'consequences' in the above experiments to be as stated, with reference to each article separately, I would ask Mr. B. if the inference which he draws with reference to them when united, as they always are in cooking, is correct? He has overlooked the vital fact that the two have been united; that a play of affinities has occurred during the process of raising and baking the dough, that has resulted in an entire different substance from either saleratus or cream of tartar.

The result, as I have already stated, is a neutral salt, perfectly harmless, so far as the teeth are concerned, and in no case would it be possible to get the separate effect of either, in cooking, unless the one or the other was used in excess—more than could be neutralized by the other. The process of raising dough by an alkali (which must always be a carbonate) and an acid, is at once most simple and beautiful. The only condition necessary in the choice of an acid, when either saleratus (super-carbonate of potassa) or carbonate of soda is used, is to select one which will decompose these carbonates, and unite with their base, and form with said base a harmless salt. Sour cream, as every cook knows, is often substituted for cream of tartar. These opposite elements are so mixed with the dough, that we may suppose a particle of each is resting, side by side, in every supposable point in the batch. As soon as the lump is subjected to a proper heat, the decomposition and recomposition begins—each particle of acid seizing and uniting with a particle of carbonated alkali, and excluding in a gaseous form its carbonic acid, which, in its attempt to escape, forms an 'air cell' in the loaf. A multiplication of these air cells thus formed gives lightness to the lump. When the bread is baked, if the saleratus and cream of tartar were used in the right proportions, there does not remain a particle of either as such. The carbonic acid of the saleratus has been expelled, and the excess of acid in the cream of tartar has united with the potassa of the saleratus, and formed the neutral compound of tartrate of potassa, which is wholly inert as regards the teeth, both directly and indirectly.

"Will Mr. Baker, in view of the above facts, please inform us what has become of his experiments, or rather show us their utility in reference to the articles tested, when used in cooking? He clearly having tested the wrong compound, whatever the result may have been, it has no bearing whatever upon the object aimed at. The destructive effect of cream of tartar, when directly applied to the teeth, is by no means overrated by Mr. B. There is scarcely any acid which acts more promptly in decomposing and dissolving the enamel of a tooth, but his experiments with saleratus could not have been carefully made; certainly, his record and my own, made by experiments, conducted with the utmost care, do not correspond. I have yet to be convinced that saleratus decomposes or dissolves the *enamel* of a tooth. Tooth-bone, which constitutes the greatest bulk of a tooth, consists (by weight) of nearly equal parts of earthy matter—phosphate and carbonate of lime—and animal matter. All alkalies have an affinity for the animal matter, but not for the earthy. The enamel, as above stated, contains hardly a trace of animal matter, and is scarcely affected by the most concentrated alkali—even caustic potash has little or no effect upon it. In the Summer of 1843 I conducted a series of experiments, assisted by Dr. Wm. Dalrymple, (now of Bond street, New York,) with the view to ascertain the precise effect of every substance liable to be brought in contact with the teeth, and which I have several times repeated and varied in different ways, that the result might not be deceptive, and which, instead of being confined to *two* articles, included between one and two hundred different substances. I find no such record as that made by Mr. Baker in regard to saleratus. These experiments were continued for four months, each tooth examined every forty-eight hours, and the effect upon it carefully recorded. In order to be more positive, if possible, in regard to the neutral salt, tartrate of potassa, (which must not be confounded with super-tartrate of potassa, or cream of tartar, which latter has a large excess of free tartaric acid,) I have, since the appearance of Mr. B.'s article in the *Tribune*, most thoroughly tested its effects upon the human teeth, and the result not only corresponds with the original record above alluded to, but fully justifies the renewal of the assertion, that this neutral salt has no effect whatever upon the teeth. Now, for the benefit of those who may have the curiosity to examine this subject, I will give a brief summary of the result of the original experiments as recorded in 1843, which is as follows:—

"I. Acids, both vegetable and mineral, act readily upon the bone and enamel of the teeth.

"II. Alkalies do not act upon the enamel of the teeth, though the strongest of these, caustic potash, readily destroys the bone of the tooth, by uniting with its animal matter.

"III. Neutral salts have no effect upon the teeth, unless the acid of the salt has a stronger affinity for the lime of the teeth than for its own base; but when this is the case, the acid leaves its former base and unites with the earthy matter of the tooth, resulting in its decomposition and destruction. We have a most extraordinary example illustrating this principle in the effect of alum upon the teeth. The effect of this substance (which is a sulphate of alumina and potassa, and which contains no *free* acid) is most destructive, wholly destroying the enamel in a few days. This result can only be accounted for on the supposition that the alum is decomposed—its sulphuric acid uniting with the lime of the tooth.

"IV. Super salts, or those which contain a free acid, have the same effect upon the teeth as their acids would have, uncombined with a base. Cream of tartar, (super-tartrate of potassa,) for example, destroys the enamel of a tooth very readily, and probably with equal promptness as if the pure tartaric acid were employed, uncombined with a base. The frequent use of this acid salt in medicine, and to form acidulated drinks, renders a knowledge of its real character, in reference to the teeth, of great importance.

"V. Vegetable substances, not acid, have no effect upon the teeth, unless by fermentation acid is formed, in which case the acetic acid would of course produce the same mischief as when derived from any other source.

"VI. Animal substances, even while in a state of confined putrefaction, act very tardily, if at all, upon either the bone or enamel. On examining the teeth subjected to such influence, the twentieth day of the experiment, no visible phenomena were presented, except a slight deposit upon the surface, of a greenish, slimy matter, somewhat resembling the green tartar often found upon the teeth in the mouth.

"To give a more definite idea of the deleterious agents to which the teeth are exposed, and the consequent liability to be affected by them, I will notice the effect produced by a few of the individual substances which are more or less liable to be brought in contact with the teeth.

"Acetic and citric acids so corroded the enamel in forty-eight hours, that much of it was easily removed with the finger-nail. Acetic acid, or common vinegar, is not only in common use as a condiment, but is formed in the mouth whenever substances liable to fermentation are suffered to remain about the teeth for any considerable length of time.

"Citric acid, or lemon juice, though less frequently brought in contact with the teeth, acts upon them still more readily.

"Mallic acid, or the acid of apples, in its concentrated state, also acts promptly upon the teeth.

"Muriatic, sulphuric, and nitric acids, though largely diluted, soon decompose the teeth. These are in common use as tonics.

"Sulphuric and nitric ethers have a similar deleterious effect, as also spirits of nitre. These are common diffusible stimulants in sickness.

"Raisins so corroded the enamel in twenty-four hours, that its surface presented the appearance and was of the consistency of chalk. This remarkably destructive effect of raisins upon the teeth will be readily understood by those who are familiar with the chemical and commercial history of cream of tartar. This substance exists ready formed in the juice of the grape, and is deposited as alcohol (in which it is insoluble) is formed during the process of fermentation; so that, in the casks used for this purpose, a cake of crude tartar is deposited. This purified is the cream of tartar of commerce. When the grapes are prepared as raisins, this substance is of course retained, and is what gives that peculiar acid flavor to this fruit in the form of raisins, and at the same time renders raisins so destructive to the teeth.

"Sugar as such does not in the least affect the teeth; but as it promotes the fermentation of other vegetable substances which may be about and especially between the teeth, the acetic acid which would thus be formed would prove an active source of decay.

"Teeth placed in calomel (which was made of the consistency of cream, by mixing it with water) came out at the end of four months as bright and sound as when they were placed in it; proving most conclusively that the direct effect of this substance, when injuriously affecting the teeth, is confined wholly and exclusively to the parts investing these organs, and hence does not act except indirectly in the destruction of the teeth.

"From the above facts and considerations, I think every intelligent reader will conclude that the theory sought to be established by Mr. Baker, viz.: 'that saleratus and cream of tartar, *as used in cooking*, are the chief agents in producing the proverbial rottenness of the teeth of Americans,' is without the least foundation in fact, and that, on the other hand, they have little or nothing to do in securing this lamentable result—while, at the same time, they do point directly to many of the agencies by which the teeth are in fact destroyed.

"With the hope that the above facts and considerations may not only do something to correct a mischievous error, but also furnish some hints which may be beneficial to the community at large, I beg leave, through your widely-circulated paper, to submit them to the public. A. Westcott, M. D., D. D. S.

Syracuse, June, 1858.

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## SALERATUS AND THE TEETH.

To the Editor of the New York Tribune—*Sir:*—So much has been said of the injurious effect produced on the teeth by saleratus, soda and cream of tartar, used in bread, that I trust you will allow me to reply to Mr. Baker's article on the subject. Saleratus is a bicarbonate of potash; baking soda is a bicarbonate of soda. When either of these is brought into contact with cream of tartar, which is a bitartrate of potash, mutual decomposition ensues, the carbonic acid gas of the alkali is replaced by the second equivalent of acid in the cream tartar, and we have the neutral tartrate of potash or soda. If sour milk is used instead of cream tartar, neutral lactates are formed. These substances ought to be used in their combining proportions, but in ordinary practice a slight excess of acid is generally used, for a very minute excess of alkali will spoil the color and taste of the baked bread. From this statement it is evident that saleratus, soda and cream tartar never enter the mouth at all, or only occasionally in very minute quantities. Perhaps it will be said this minute quantity may be sufficient to produce the injury complained of. But there is no foundation for this opinion, for the teeth of negroes are remarkably sound, and yet they use their full proportion of these articles. Again, we know that the teeth of the ancient Britons did not decay, for they are to be found perfectly sound to this day in skulls which were interred in the days of Julius Cæsar in the tumuli which are found in various parts of England, while the teeth of the modern inhabitants of that country are very defective, although fifteen years ago the use of saleratus, &c. was entirely unknown to the mass of the people. Thus we see the teeth of the people of England and of many in this country, who do not use saleratus, decay, while those of negroes who use it largely, and sometimes unneutralized, do not decay; it is therefore certain, the rotten teeth of the moderns are not produced by saleratus, and we can go further yet, for we have conclusive proof that alkalies are not poisonous to the general system, in the fact of all fresh milk being slightly alkaline. The opponents of saleratus must certainly have overlooked, or been ignorant of the fact that the mildest and most easily digestible food for the young, the weak and the delicate, is alkaline.

"As to cream tartar being unwholesome, I presume it is only necessary to say, that is obtained from grapes precisely in the condition in which we use it. The pleasant acid of this most delicious and most valuable fruit is due to this substance.

"Although it is absurd to discard alkalies as poisonous, it is a fact, that when used in such excess as to render the fluids of the stomach alkaline, they are injurious, (as is excess in the use of any article of food,) therefore, I would advise persons of weak digestion to be cautious in the use of it, and never eat much molasses-cake and sugar crackers, as they generally contain unneutralized alkali, its disagreeable taste being covered by the sweetening. C. Dowden."

# Extracts from the Dental Periodicals and from other Publications;

WITH OCCASIONAL COMMENTS.

BY. J. R. M'C.

*Dental Reporter*, for November.—We took exception, in our October number, to certain principles advanced by a writer in the August number of this periodical, on the subject of dental patents; the writer of which, in replying to our strictures, in the above issue, indulges, we are sorry to see, in so many personalities, as to forbid any further discussion with him. In his reply, he informs us that he has "no sentiments;" and further, that we have been led "into an attack upon shadows." To end the discussion then, we accept his interpretation of the character of his article, viz.: "that he has neither SENTIMENTS NOR SUBSTANCE," and which we paraphraze in the following quotation:—

"What 'shadows' we are."—*Dental Reporter.*

"And what 'shadows' we pursue."—*Dental News Letter.*

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*Electrical Anæsthesia, comprising a brief history of its Discovery, a Synopsis of Experiments; also full directions for its application in Surgical and Dental Operations.—By W. G. Oliver, Buffalo.*—We are indebted to the author for a copy of this publication, and append a synopsis of its contents.

A statement as to how he came to apply electricity for the mitigation of pain in dental operations,—then a series of experiments in surgical cases, made in the Buffalo Hospital—the suggestion of its use and the manner in which he would apply it in obstetrical cases; a reference to Du Bois, Raymond Matteucci, and other celebrated writers on animal electricity in support of his "theory of operation." We then come to "dental operations—arrangement of battery," under which head he gives a description of battery, and of his method ot applying the current and manner of extracting the teeth, also describes the application for extirpation of living nerves and excavation of sensitive cavities, and detailing the course to be pursued with ulcerated teeth and fangs—then general remarks upon the use of the battery with some specific directions, and the result of his own experience with it, and concludes with certificates from various parties operated upon, from all of which it would appear, that electricity in his hands has proved to be all that could be desired.

We hope the experience of others may warrant this conclusion.

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We have received a circular informing us that a patent has been obtained by J. S. Simmerman, D. D. S., Glassboro, N. J., for a new method of applying electricity in the extraction of teeth, by the means of "an insulated adjustable spring *clip*," the said "*clip* being connected with one of the poles of an adjustable electro-magnetic machine."

The difference from that of Francis' method seems to be, that in this, the application is made to the *gum*, through the medium of the clip, and in the other, as is known, to the *tooth* through the forcep. What advantage it may possess, or whether any, over the old method, we are not prepared to answer, but we cannot understand why it should be any more effectual or convenient, yet we await further experiment.

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*Painless Dental Surgery.—By J. Smith, M. D., Edinburgh, Dentist and Surgeon, etc., etc.*—We have been favored, by some friend abroad, with the printed sheets of an article on this subject, which sheets have apparently been extracted from some medical periodical, the name of which does not appear.

The writer treats the subject of "the induction of insensibility at that part only where pain is to be inflicted;" and reviews the many efforts made by dentists to the attainment of some mode or application whereby pain may be suspended or, at least, partially annulled. He tells us that "*local anæsthesia* was mentioned by the ancients, as by Dioscorides, and described as a possible if not an ordinary mode of practice among surgeons and others; and it has long been popularly asserted, too, that the Chinese have for some unknown period been, and are now, the possessors of a secret method of extracting teeth without pain or suffering of any kind." What this secret method is he is not able to inform us, but gives the supposition of another, that the agent employed by them is a preparation of arsenic, which being applied to the tooth from time to time, "acts on it in such a detrimental manner as to loosen it in its socket, and thus, of course, to lead to its easier removal in the end."

In speaking of local applications, he says, "Little need be said of the attempts to induce local insensibility by mere external application of these agents, since, as yet, it has failed to produce effects anything like sufficient to enable a tooth to be extracted without pain. Chloroform, ether, opium, aconite, amylene, bi-sulphuret of carbon, cyanide of potassium, hydrocyanic acid, etc., have all been tried in this way by myself, and these and several additional substances have been tested by others also; and the result has been to prove them, when merely applied to the unbroken surface, as entirely ineffectual for such purposes.

"Instead of applying these substances superficially, however, if I may allude to an experiment of my own, it occurred to me that they might possibly act with greater efficacy were they injected into the tissues by means of the syringe and perforated needle. I accordingly made a number of experiments of this nature with many of the substances already enumerated, with somewhat better result; but, so far as I have been able to form an opinion, the solution of the muriate or morphia—four times the ordinary strength—acted as satisfactorily as any of them. Aconite I have employed in this way with apparent diminution of pain in cases where stumps, etc., had to be removed; but the disagreable and persistent tingling it produces at the part, and apparently, in some instances, the increase of the ordinary hemorrhage after extraction, renders the employment of this agent less desirable. Used even in this manner, however, these substances did not appear capable of producing by any means such a degree of local insensibility as would be sufficient for rendering tooth extraction painless."

He then proceeds to a review of the *freezing process*, which he finds liable to produce injury when the part has been fully frozen, the accomplishment of which, he thinks much easier in theory than in practice—difficult of application, and very uncertain in its results, and then details a series of experiments made by himself, and the various appliances used, one of which, a large brass ball of peculiar construction, the result of which he sums up thus: "This apparatus, however, I found to be applicable only in certain cases, and even then, as I have already said, of freezing applications in general, I found it apt to disappoint the expectations of relief from pain."

Next in order of treatment is the application of galvanism or electricity, in which he remarks that there has been "some misconception in the results observed in certain physiological experiments made on the nervous system with these agents," resulting in the mistake of "confounding mere *altered* with *arrested* nervous sensation, as the pain of an operation, in fact, becomes under this agent not less in amount, but different in kind—the electric thrill not supplanting, but being superadded to such pain."

"In this way, however, advantage has in some instances been taken of the distraction of the attention thus occasioned, together with the effect of imagination, influenced by suggestion, to make patients believe that the pain of tooth extraction actually was materially diminished."

And again, "But the shallowness and untenable nature of any such hypothesis as that of pain in tooth drawing, being capable of prevention by merely making the forceps, or other instrument, when applied to the tooth and gums, a means of completing the electric circuit, becomes at once apparent, when we find that precisely the same principle is utterly ineffectual when applied in a far more simple manner, by retaining exactly the same arrangement, but only substituting a common needle for the forceps; the pain on pricking the finger with such needle being thus not in the least diminished, but rather increased."

He then gives the result of his experiments with this agent, affirming that his success has not been equal to that claimed by others, and then proceeds, at much length, to defend his hypothesis of the effects of electricity, viz., that it is a self-deception dependent upon a preconceived notion that the operation will be painless, and then sums up as follows:

"From the foregoing observations, then, it would appear:—

"1st. That the application of narcotic and other substances to the unbroken surface, or even their injection into the tissues, has as yet failed to render tooth extraction painless.

"2d. That freezing, from the want of uniformity and uncertainty in its action, and the difficulty of its application, is also inadequate for this purpose.

"3d. That electricity, applied in any way yet practiced in dentistry, is not an anæsthetic; and that any apparent effects of this nature are due to causes quite apart from any such quality in that agent itself."

Just here we must give a recent case of an exceedingly timid and nervous lady of our acquaintance who had had a number of teeth removed with the aid of galvanism, and who asserted that *the operation was comparatively a painless one*, that the sensation of the current was unpleasant, but not to be taken into consideration with the relief afforded by it.

Such instances as the above come to our knowledge repeatedly, and in view of the diversity of opinions, are well calculated to induce the query, why is there such a difference in results in different hands?

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*London Quarterly Journal of Dental Science—October.*—In this issue of the Journal, we find two communications on the subject of electricity in extractions, also an able editorial on the same subject, in which much that has already appeared in print in this country as well as in England, receives careful and respectful consideration. We notice, also, that the "College of Dentists" have called a meeting for the purpose of discussing and testing this new agency in the alleviation of pain, from all of which we infer that the matter is receiving more than ordinary attention at the hands of the profession in England.

We note, also, reports of two cases of death from the inhalation of chloroform, one in the hands of a surgeon, the other in those of a dentist.

We now make the following selections, "On the Regulation of the Teeth by Extraction. By John Cox Smith, Esq.," etc. The writer after some general remarks on the importance of the subject of the prevention and cure of irregularities, their causes, and the many difficulties attending their correction, enumerating the various appliances used or suggested, supposing them all good in their proper place, proceeds more directly to the subject expressed by the caption of his article, as follows:

"But it is not my intention to enter on this part of the subject, my object being simply to call attention to prevention, rather than cure, and the influence that the timely extraction of the temporary teeth has in inducing the healthy and regular advent of the permanent set. I believe that were the first teeth extracted in time, the second would very rarely be irregular. I think that children's teeth should be the subject of systematic observation, and I lay it down as a principle, that whenever the advent of the upper seem to be unusually delayed after the appearance of the lower, the temporary teeth should be carefully removed; and will endeavor to assign good reasons for this procedure.

"A glance at the skull of a child of six years of age, reminds us of the fact, that the crowns of the permanent teeth lie behind the fangs of the temporary ones, so that, if from causes exceptional, or otherwise, the temporary teeth be retained too long, the permanent ones will make their appearance behind them. Now a misplacement of this kind in the lower jaw presents no difficulty; all that is wanted is *room*, and this is obtained by extraction of as many as may be deemed sufficient. In the upper, when this is perceived, of course, this is done, but generally too late, as when once through the gum at a considerable distance behind the temporary teeth, they rarely have time to regain their proper position before they come into contact with the lower, thus inevitably forcing on both parent and dentist the conclusion, that had the operation been performed earlier, it would have been still more successful. Now I know that the impression is popular, not only with the profession, but also with parents, that temporary teeth should always be allowed to remain as long as possible, because they are intended to be absorbed into the substance of the permanent set, and a paper has recently been published having a tendency to take this view of the case; but this appears to be a process connected with the earlier stages of the development of the permanent tooth, and I believe that the extraction of the temporary teeth, even though it should happen to be performed rather early, would be attended with no injury to the second dentition.

"I consider, that even after the fang of a temporary tooth is nearly absorbed, the connection of the tooth with the gum only is sometimes so strong, that a very serious obstacle is frequently offered by that circumstance alone to the proper advent of permanent teeth. My attention was first directed to this circumstance by the following case:—

"Miss H—— was brought to me by her parents for consultation. She was eight years of age, rather delicate, and possessing an amount of nervous excitability which materially interferes with the tractability of a young patient. The right permanent central was fully developed, the place for the other was occupied by the crown of the temporary tooth; immediately above it was a dull, hard, circumscribed tumor, that to a dentist seemed sufficiently intelligible. All this was simple enough, but the peculiar part of the case was this:—All these appearances had existed for nearly twelve months. I at once explained my view of the case, and recommended the immediate removal of the remainder of the temporary tooth, which was very loose; but the bare mention of anything of the kind threw the child into so violent a state of excitement, that I did not attempt it. I thought I should like to see for myself, if so apparently slight an obstacle would prevent the permanent tooth coming through, and recommending the occasional application of a leech, together with a little alterative treatment, I allowed the matter to go on. For four or five months did this state of things exist, until, becoming better friends with her dentist, my little patient permitted me to remove the stump. A fortnight after, the tooth came through. Now I confess that this case made considerable impression on me. Here was a permanent tooth obstructed in its development for nearly eighteen months by a mere shell, and the fact, so far an isolated one, becoming known to me by accident, seemed an excellent illustration of the mischief which doubtless frequently occurs from allowing loose stumps of temporary teeth to remain in the mouth, under the impression, that being loose they can offer no real obstruction to the development of the second set. The child was doubtless rather delicate, but not more so than many children naturally are, or are sometimes most unnaturally made to be by the existence to which they are subjected, by being confined so many hours a day in the close and unhealthy atmosphere of a crowded school-room, too frequently worried up the hill of knowledge, and a large amount of cerebral action induced at a time of life when physiology proves, that an abundant supply of fresh air, plenty of healthy exercise, and much rest, are most necessary for the proper development of the human frame.

"I think that many permanent teeth are for ever prevented from making their appearance, by the retention of the temporary ones till too late in life. The second bicuspid I have frequently seen most efficiently extinguished by the second temporary molar, which in some instances has been simply retained by the adhesion of the gum, in other cases by the growth of the first permanent molar behind it, and the first bicuspid in front; and as the permanent teeth always rise higher than the temporary set, the temporary molar was firmly locked in by the bulge of the crowns of its neighbors. I once saw a case of this kind in a lad of fourteen, of very highly nervous temperament, who was very subject to epileptic fits. I made the remark that the condition of his teeth was far from regular, intimated the possibility of its affecting his health, and recommended attention to the subject; but the lad objected and the parents were quite satisfied with the opinion of Dr. A——, 'who would have told them had there been anything the matter with the teeth;' and so I was silenced I cannot say that I was convinced.

"It may not here be irrelevant to say, that I think that at about the period of shedding the first molars, that children are sometimes very inconsiderately treated. I have frequently seen youth of both sexes, who have been brought to me with the gums in either jaw turgid and swollen with the struggle that was going on.

"On asking questions I have frequently found great constitutional disturbance, such as thirst, heaviness, sense of oppression, &c., and other evidences of being utterly unfit for occupation in scholastic duties, or at least to have them pressed urgently upon them. But such is the tyranny of custom, and the importance that is attached to '*getting on with their studies*,' that many a weary hour is passed in the humdrum of classroom occupation, injurious to the pupil and unsatisfactory to the teacher.

"I will close these few remarks with reiterating my belief, that many of the irregularities of the permanent set would be prevented by more careful observance of the mouth during the period intervening between the appearance of the permanent teeth in the lower jaw, and those in the upper. That at that period the temporary teeth may be safely extracted, without doing violence to any known laws respecting the physiology of the teeth, and should certainly be removed should the dentist notice much apparent stability, thickness of gum behind them, or unusual delay in the appearance of the permanent teeth corresponding to those of the lower jaw that have last made their appearance."

"*An Historical Review of Dental Surgery from the earliest period to the commencement of the present century.*—From Kurt Sprengel's 'Geschichte der Medicin,' (History of Medicine.) Translated from the French of A. T. L. Jourdain, with critical and explanatory notes, by A. Hockley."

Mr. Hockley, in communicating this paper to the *Quarterly Journal*, prefaces it with some explanatory remarks, in which he states that deeming the subject of the early history of our profession of sufficient importance, he had "set about collecting the materials necessary for writing its history from the earliest time to a very recent date, and for that purpose consulted, among others, the above work or Sprengel," and "finding that the chapter upon operations relating to the teeth, contained an historical summary of dental surgery from the earliest period to the commencement of the present century," concludes upon its translation, adding some of his own material in the shape of notes.

"As the dental art forms at the present day a distinct branch of surgery, and is cultivated exclusively by one class of practitioners, so also we find, that its practice among the Egyptians was, from a very remote period, confined to a particular class who devoted themselves entirely to its study.* It was not, however, unknown to the ancient physicians, since it is related that Æsculapius III., the son of Arsippus and Arsinœ, was the first who practiced the extraction of teeth. In fabulous times, precepts had then been given against the inconsiderate extraction of these small bones; for Erasistratus speaks of a tooth extractor in lead, which was suspended in the Temple of Delphos, to indicate that only teeth which were quite loose should be extracted. Hippocrates also recommends this precept before every other:—‘Extract,’ says he, ‘those teeth which are decayed and loosened; but when they are neither decayed nor loosened, yet cause violent pains, it is necessary to cauterize them.’ Heraclides of Tarentum, and Herophilus, relate cases of persons who had died in consequence of the extraction of teeth. Hippocrates mentions, likewise, a remedy against the fœtidness of the breath, and discoloration of the teeth; and Menamachus* prescribes one for decayed teeth.

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* The Egyptians paid great attention to health; and so wisely, says Herodotus, was medicine managed by them, that no doctor was permitted to practice any but his own peculiar branch; some were oculists who only studied diseases of the eye,

“Celsus has given a tolerably complete insight into all the operations relating to the teeth. He advises not to resort too hastily to the extraction of a decayed tooth, unless compelled by imperative circumstances. When violent pains necessitate the removal of the tooth, it may be made to fall in pieces by inserting into its cavity a peppercorn, or ivy berry, or by placing around it a preparation composed of the prickle of the thornback (pastinaca) roasted, and afterwards bruised and mixed with resin. If scissile alum, wrapped in a little wool, be placed in the cavity, the tooth will be preserved, and the pain removed. The points of a decayed tooth which hurt the tongue must be filed down. Parulides must be completely removed by excision, and ulcers of the gum, when excited by a carious tooth, should be opened, and the tooth extracted. Any spiculæ of bone, of which the tissue may be impaired, must be removed, and the bone afterwards filed down. When the teeth begin to loosen by reason of the weakness of their roots, or the wasting of the gum, the actual cautery should be applied to the latter, which should afterwards be annointed with honey; but when extraction is absolutely necessary, the gum must first be detached from the tooth, and the tooth moved repeatedly, until it becomes thoroughly loosened. The tooth is then, if possible, removed by the fingers, or the forceps, if it cannot be reached otherwise, taking care, nevertheless, if the tooth is decayed, to fill it with a small piece of lint, or lead, so that it may not break from the pres-

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others attended solely to complaints of the head, others to those of the teeth; some again confined themselves to complaints of the intestines, and others to secret and internal maladies: and it is a singular fact, that their dentists adopted a method not very long practiced in Europe, of stopping teeth with gold, proofs of which have been obtained from some mummies in Thebes. They received certain salaries from the public treasury, and after they had studied those precepts which had been laid down from the experience of their predecessors, they were permitted to practice. Though paid by the government, it was not illegal to receive fees for their advice and attendance.—*Travels in Egypt, by Sir G. Wilkinson.*

“Of the skill of the Egyptians in the manufacture of artificial teeth, there are specimens in the Museums of Paris and Berlin. The valuable and extensive collection of Joseph Mayer, Esq., F. R S., of Liverpool, contains, among other Egyptian antiquities, two pieces of artificial teeth, one of five teeth carved in bone, the other of two teeth in sycamore wood set in gold:—and Dr. Purland has in his collection a tooth found pivoted to a stump in the head of a mummy. Belzoni and others discovered artificial teeth made of sycamore wood, in the sarcophagi of the Egyptians.”

* “The preparation which Menamachus composed for the molar teeth, consisted of saffron, cardamom, soot, frankincense, parts of figs, pellitory and mustard.—*Celsus de Medicina.*”

sure of the instrument, which must be pulled direct, lest the thin bone, the alveoli, to which the bent fangs adhere, be broken in any part, for the extraction of the firm tooth is attended with the greatest danger, the jaw being sometimes dislocated, or the operation, if performed on the superior maxillary, may communicate a shock to the eyes or temples.

"It sometimes happens, especially when the tooth to be extracted is small, that the forceps seizes at the same time a portion of the jaw, and when there is a greater effusion of blood than ordinary, we may discover that some portion of the bone is fractured. In this case, the gum must be incised, and the detached bone removed with small pincers, because, without this precaution, the entire jaw bone would tumefy. After this operation, a poultice, composed of meal and figs, is to be applied, until matter be promoted; the gum is then lanced, and a search made for the splinters. If the bone, without being fractured, is found to be affected by caries, it is filed down.

"Celsus scraped a carious tooth until the decayed part was quite removed, and then annointed it with a mixture of rose leaves, nutgalls, and myrrh. He fixed loose teeth by attaching them with a gold thread to those adjoining that were firm, and when in the case of children a second tooth happened to grow before the first had been shed, he extracted the latter, and pressed upon the new tooth so as to force it into its proper position. Such stumps, or portions of roots as remained in the alveolus after the extraction of a tooth, were removed by a forcep, called by the Greeks, Rizagra.

"Of the numerous tooth powders invented by the ancients, those of Democrites (of which Galen has given the receipt in verse,) and Octavia, sister of Augustus, (found in Scribonius Largus,) are the most distinguished.*

"Scribonius, who does little more than publish formulas of every thing relating to surgery, here abandons his ordinary empiricism, and gives some very judicious precepts. I know well, says he, that many believe there is no better remedy for toothache than extraction, but before proceeding to that, there are many other remedies that may be successfully employed. It is not necessary to proceed at once to extraction, even though caries exist, for by removing the decayed portion of the tooth with a sharp cutting instrument, such removal causing no pain, whatever remains is as sound as a perfect or healthy tooth.

"Violent toothache yields sometimes to various medicaments, as lotions, fumigations, applied to the diseased part. Loose teeth may be tightened by a decoction of patience root in wine or asses milk. Scribonius also mentions various preparations for tooth powders, that are likewise to be found in Galen, a great number of which had been invented by Andromachus, Antiphanus, Aristocrates, Diocles, Criton and Temocritus.

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* "Galen has transmitted to posterity the formula of two dentifrices, written in verse. Democritus drew them out of a little book called *Pythicus*, which was also the name of him who prepared them; one of them used the powder of radishes dried in the sun, or of white glass finely pulverized and mixed with Indian spikenard. Messalinus made use of a dentifrice composed of burnt hartshorn, mastic and sal-ammoniac. Perhaps it is doubtful whether these compositions were preferable to the dentifrice which was presented to Calpurnianus by Apulias: the charming verses by which it was accompanied, announced it to be composed of the finest drugs of Arabia. 'It is an excellent powder,' says he, 'very fine, which has the property of whitening the teeth, of dissipating the swelling of the gums, and of removing that which adheres to them so completely, that no traces of tartar can be perceived, even when the gums are exposed by laughter.'—*Advice of the ancient poets, by J. R. Duval.*"

"Archigenes, for the cure of aching teeth, recommends that they be washed with a decoction of gall nuts, or alkekengi berries, in hot vinegar. Into decayed teeth he inserted sulphate of iron, and turpentine, or a mixture of pepper and oil of almonds, of which he also poured a few drops into the ear. Teeth slightly inflamed and changed in color, he annointed with a mixture of carbonate of soda, peach stones and resin, until the pain had ceased. He mentions several methods to prevent bleeding of the gums. Appolonius Migmatopolus has made known similar preparations, and marked out several precepts relative to the employment of vapor baths, and cauterization of decayed teeth. Injections of the nose and ears he considers proper to cure toothache.

"Galen demonstrates that the teeth are not entirely deprived of sensibility, as might be inferred from the absence of pain when they are filed, from the following facts; having proved on himself that the pain proceeds from the small nerves enclosed by the roots—that the substance of the teeth may easily become inflamed, as denoted by the throbbing pain that is felt, and the blackish color they acquire, and the efficacy of antiphlogistics in removing these complaints. As the vacillation of the teeth observed among aged persons, does not depend on the teeth themselves, but upon the parts surrounding them, being caused, in fact, by their imperfect nourishment, Galen indicates no other remedy than the strengthening the gums. He likewise, with much sagacity, advises, that before we attempt to cure toothache, we should endeavor, above all, to become acquainted with the cause of it, as if we can succeed in removing that, the pains appease themselves. Dental caries, in a great number of cases, proceeds equally from internal causes. Galen extols above everything as a remedy for toothache, the use of vapor baths, and the introduction into the tooth of a small piece of wax, pressed well in by means of a probe. When the pain cannot be appeased, the tooth should be perforated with a small trephine, and the same remedies applied as before: if ultimately this method fails, and it is considered desirable to remove the tooth, it can be done without pain to the patient, by the application of pirethrin root and strong vinegar, from the action of which, the remaining teeth may be preserved by covering them with a layer of wax. At the expiration of an hour the tooth becomes so loosened, as to be easily removed. It will also fall out by itself if placed in contact with sulphate of copper and strong vinegar.

"Black hellebore, or ginger, inserted into the tooth, removes the pain, and prevents fœtidity of the breath. When from a blow or otherwise a tooth is loosened and projects beyond the level of the others, the projecting part should be filed down, for which purpose a small file is used, and the tooth is held between the fingers, so as to prevent its being further loosened: as soon as the operation causes pain, it is suspended, antidinics are administered, and after the lapse of a few days it is repeated.

"Finally, Galen, whilst agreeing with his contemporaries, that it was possible to cause a tooth to fall in pieces, and that without pain; at the same time advises, in one of his writings, that in extracting teeth, it is necessary always to commence the operation by cutting around the gum.

"According to Cœlius Aurelianus, scarifications of the gums and the application of cupping glasses to the cheek, are frequently a great relief in toothache. This complaint may also be combatted by a sort of cauterization which is applied by twisting some wool around a probe, dipping it into boiling oil, and applying it either to the tooth itself, or on both sides of the gum.

"Cœlius condemns the inconsiderate extraction of teeth which, as it removes the pain without curing it, ought only to be regarded as a last resource when every other has failed; he urges, above all things, that care should be taken in extracting teeth which are firmly fixed, as the adjacent parts, particularly the eyes, are always affected by the operation, and frequently it is not only one tooth, but the entire jaw which aches in such a manner as to render it necessary to extract all the teeth in order to obtain relief.

"Marcellus, of Bordeaux, was considerably behind his predecessors, whose precepts, as we have seen, were generally very judicious. This writer repeats the same words of Scribonius, and recommends the use of amulets and other superstitious means. Thus, when a tooth which is loose or painful, is to be extracted, the nose of the patient should be rubbed with brown sugar, ivy, and green oil: he is advised to hold his breath, a stone is then placed between his teeth, and he is made to close his mouth. The fluid which causes the pain is then seen to flow from the mouth in such quantity as frequently to fill three pots; after having cleansed the nose with pure oil, and rinsed the mouth with wine, the tooth is no longer painful, and may be easily extracted. The tooth will likewise drop out by itself, if the tooth be rubbed with African sponge, but care must be taken not to meddle with a tooth which is healthy. To preserve oneself to a certainty from the toothache, it is only necessary, at the return of the swallow, to repair silently to the border of a clear rivulet, to take some water in the mouth, and to rub the teeth with the forefinger of both hands, and repeat these words:—'Hirudo, tibi dico, quo modo hoc in nostro iterum non erit, sic mihi dentes non doleant toto anno.'

"The teeth, says Ætius, are open at the roots, and these openings admit small nerves coming from the tri-facial. For this reason they are the only bones which can become painful of themselves; they are nourished by the deposition of a superfluous nervous fluid in their interior; but at the period of old age the process of nutrition ceases, they then become loose, and finally drop out. Thus, there are two kinds of odontalgia, the superabundance, or want of the nutritive principle, and by either of these we should be guided in the choice of remedies. These remarks of Ætius display a skillful anatomist for the time in which he lived, as those of Galen on the inflammation of the teeth denote a physician well versed in diagnosis. Ætius advocates the burning of phagedenic ulcers of the teeth, with a probe covered with wool and dipped into boiling oil; also the excision of abscesses of the gums, because when an incision only is made ulcers frequently result from it. When the epulis does not yield promptly to caustics, it is seized with pincers and excised with a straight bistoury. When incision does not suffice to cure ulcers of the gum it is best to extract the decayed tooth which occasions them. As to the manner of filing and extracting the teeth themselves, as well as the treatment of caries with which they may be affected, Ætius does nothing but copy Galen.

"Paulus Ægineta distinguishes very well epulis, a fleshy excrescence of the gum, growing above the teeth, from parulis, an abscess of the same gum. The former is removed by raising it with a hook, or forceps, and cutting it out with a bistoury, and the latter is cut round with a sharp-cutting instrument, although it may sometimes be cured by making a simple incision. After the operation, the patient's mouth should be rinsed with wine, and a mixture of honey and vinegar, followed by an application of verdigris. When a tooth is to be extracted, the gum must be detached from it, down to the edge of the alveolus. It is then seized with the Rizagra, and well shaken, in order to loosen

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* "With the exception of Galen and Ætius, the knowledge of the Greek and Roman writers of the structure and development of the teeth was very limited, and their views upon the subject extremely fanciful and imperfect. Hippocrates describes the teeth as a glutinous substance, growing from the head and jaws, the fatty part of which is dried by heat, and burnt up, and that they are much harder than the other bones, because there is nothing cold in them. That in the fœtus they are nourished by the food of the mother, and after birth, by the milk which the infant sucks from the breast. He considers that to have many teeth is a sign of living to a considerable age. Aristotle asserts that the teeth continue to grow and increase in length during life, which constitutes the difference between those and the other bones of the body. That man has more teeth than woman, and that the same difference may be observed between the sexes of various classes of animals. Aretæus considers that the cause of toothache is known only to God; and Pliny remarks on the indestructibility of these organs, that while every other part of the bodies enclosed in the sarcophagi was destroyed, the teeth remained perfect. Galen, who possessed a greater amount of knowledge on the subject than any other ancient writer, enters into a full description of the structure and formation of the teeth. He defines them as true bones, and states that they are formed during the period of gestation, but remain hidden in the alveoli until birth. That the canine teeth had received the appellation of ocular, because branches are sent to them from a nerve, which distributes others to the eye; and he describes with accuracy the forms of the roots of the molar teeth of both jaws.

"It appears strange that the Greek and Roman writers make no mention of the replacement of the natural teeth by artificial ones, as at the period they wrote, and for a considerable time previously, this branch of the dental art was extensively practiced at Rome and Athens, as may be inferred from the allusions of Martial and Catullus, and other satirical writers to the manners and customs of the people.

"Celsus, who describes most accurately the various operations in dental surgery, speaks only of the fixing of teeth, which are loosened, to the adjoining ones by means of gold or silver wire; a method adopted nearly 500 years previously by Hippocrates, and recommended by him chiefly for adjusting fractures of the lower jaw. And who advises, that when the broken ends of the bone are placed in apposition, the teeeh should, if they be disturbed and loosened, be tied to others with a gold thread. This practice of fixing teeth was not an uncommon one at that period, as the following extract from the celebrated Laws of the Twelve Tables, will show, the tenth of which, relating exclusively to burials and funeral ceremonies, among other directions, says, 'Let no gold be used, but if any one has had his teeth fastened with gold, let it be lawful to bury or burn that gold with the body.'

"'The advice of the ancient poets upon the preservation of the teeth,' formed the subject of a paper read in 1803, by J. R. Duval, before the Society of Medicine o Paris. An English translation of the same, by J. Atkinson, under the title of 'The Dentiste de la Jeunesse,' was published in London, 1820: in it will be found many allusions to the wearing of artificial teeth by the ancients."

it, and afterwards extracted, by pulling it perpendicularly. He also, with Celsus, recommends, that previous to the operation, the cavity of the tooth be filled with a small tent, so that the tooth may not be broken; projecting teeth may be filed, and the same means may be adopted for removing the sharp edges of those that have been broken; Paul admits with Galen the inflammation of the teeth, and recommends various electuaries and powders, for this, as well as for several other diseases."

(To be continued.)

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From a paper on "*Chemistry of Platinum, in connection with its use in Dentistry*, by B. H. PAUL, PH. D.," we copy the following:

"This metal, like gold, occurs native, and almost always in the beds of rivers, or in alluvial deposits, originating from the disintegration of rocks, situated in mountain ranges. Near Nischne-Tagilsk, in the Ural, it is met with only in a gravel consisting of serpentine, and is associated with chrome-iron ore, of the same kind as that occurring in the serpentine rock at that place, so that it is very probable the platinum originates from this rock.

"The chief localities where platinum occurs, are the eastern and western declivities of the Ural mountains; the provinces of Matto Grosso and Minas Geraes, in Brazil, as well as other parts of South America, Burmah, Borneo and St. Domingo.

"It generally occurs as small grains, or nuggets, seldom pure, but combined with iron, palladium, iridium, rhodium, osmium, etc., and associated with granules of gold, osmide of iridium, titaniferous iron ore, chrome-iron ore, &c. * * * * * * *

"The spongy platinum obtained by igniting the double chloride of platinum and ammonium is generally reduced to a coherent mass by compression and hammering, advantage being taken of the fact that platinum resembles iron in its capability of being welded. In the Russian mint the spongy metal is powdered in a brass mortar and sifted; the powder is then placed in a cast iron cylinder and compressed by means of a piston forced down by a press. The rod of platinum thus produced is then heated to redness for the space of thirty-six hours in a porcelain furnace. During this time it contracts considerably, and the bar becomes perfectly malleable.

"Platinum prepared in this way is harder than copper, softer than silver, possesses great tenacity, and, next to gold and silver, is the most ductile metal. When pure it is perfectly malleable. Its density as estimated by Faraday and Stodart is 21.25. Until recently platinum was regarded as almost infusible, and only small pieces had been more or less imperfectly melted by the flame of the oxy-hydrogen blowpipe. M. Deville has, however, directed his attention to the melting of platinum and has succeeded in effecting it on a very much larger scale. In the instances in which platinum seems to have been melted previously, it has been probably combined with silicium derived either from the fuel or from the crucible, and has thus been rendered brittle and incapable of being worked under the hammer. To obviate this, M. Deville used crucibles made of lime, and he has found that by this means he is able to melt platinum very readily, and also that it is very much improved in its character by this treatment. Thus, for instance he states that it is more malleable, and unlike the metal prepared by compression of the sponge and welding, it is not porous.

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"The alloys of platinum with other metals have not been so fully studied as would be desirable, and the accounts given of them are sometimes conflicting. With twice its weight of zinc it gives a bluish white, very hard metal, that is easily fusible, and oxidizes when heated to redness. With tin it gives brittle hard alloys. With an equal weight of iron it gives a brilliant alloy that is very hard and malleable, and resists the file; an alloy of iron with one hundredth of platinum is not acted upon by nitric acid. The alloys of platinum with steel, in various proportions, have been examined by Faraday and Stodart; some of them are very tough, and applicable for cutting instruments. With an equal weight of copper it gives an alloy that has the color of gold; is malleable and not oxidized by exposure to the air. The alloy of seven parts platinum, sixteen copper and one zinc, has the color of gold, is easily rolled, does not tarnish, and is not acted upon by boiling nitric acid. When it contains a small portion of iron, it is malleable. Platinum sponge may be combined with mercury by rubbing them in a warm mortar with water or acetic acid; or the amalgam may be made by rubbing moist double chloride of platinum and ammonium with half its volume of sodium amalgam. With silver, it gives an alloy that is much harder than silver, and dissolves entirely in nitric acid. The alloy of equal parts of gold and platinum is very malleable, and has the color of gold.

"With regard to the alloys of platinum with analagous metals, very little is known with certainty. It is stated that a small amount or iridium alloyed with platinum reduces its ductility but increases its hardness. Berzelius found that an alloy of platinum with a few hundredths of iridium was much harder than pure platinum, less fusible and less readily affected by chemical re-agents. Gaudin describes an alloy of platinum with one-tenth iridium as very malleable, and capable of being hardened. * * * * * * *

"The separation of platinum from other metals with which it is alloyed may be effected with tolerable ease. From silver it may be separated by boiling the granulated alloy with concentrated sulphuric acid which dissolves silver and leaves platinum, which may be purified by solution in nitrohydrochloric acid, and precipitation as double chloride of platinum and ammonium, after the separation of chloride of silver. From gold it may be separated by melting the alloy with three times its weight of silver, and parting with nitric acid in the usual manner. In this case the platinum is dissolved by the nitric acid, and may be obtained as double chloride, after the silver has been precipitated and separated as chloride, from the solution. Or the alloy of gold and platinum may be dissolved by nitrohydrochloric acid, and the gold precipitated by sulphate of iron, which does not precipitate platinum.

"From other metals platinum may be separated by boiling the alloy with hydrochloric or nitric acid, then dissolving the residue by nitrohydrochloric acid, and precipitating the platinum as double chloride of platinum and ammonium, by adding chloride of ammonium to the solution."

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In the new Medical Act of England, which went into operation October 1st, 1858, the following article occurs:

"XLVIII. It shall, notwithstanding anything herein contained, be lawful for Her Majesty, by Charter, to grant to the Royal College of Surgeons of *England* Power to institute and hold examinations for the purpose of testing the fitness of persons to practice as dentists who may be desirous of being so examined, and to grant Certificates of such fitness."

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"*Dental Register of the West*," for December.—This Journal is just to hand. In it we find, among other matters of importance, a lengthy article (too lengthy for the present condition of our columns, and of such a connected character that we cannot extract intelligibly) on "Continuous Gum Work, by Dr. W. B. Roberts," in which is given a very full and elaborate description of his mode of getting up this kind of work.

We give the heads, and the order of treatment, from which it will be seen that every step in the process is fully detailed. Taking the impression—the plates—articulation—arranging the teeth—lining and fastening—soldering—first coating of body—baking—second coating—enamelling or gumming. Also, continuous gum applied to partial sets—repairing—concludingremarks.

We must refer those interested in this matter, to the above-named Journal.

"*A Synopsis* of some remarks made in a preliminary lecture to the class in the Ohio College of Dental Surgery, Session 1858–9. By J. Taft—*Dental Ethics*." From this paper, which is all good, we make room for the following extracts:

"The dentist should always manifest towards his patient the bearing of a perfect gentleman. This is a suggestion applicable in all our intercourse with mankind, but, in a very high sense it is true in regard to the dentist, whose contact with his patients is of so peculiar a character.

"Kind attention should ever characterise the dentist; yet no unbecoming familiarity, nor sycophancy or fawning,—such a bearing is always disgusting to persons of a just appreciation of character.

"Always exhibit sympathy for the suffering; yet permit not that sympathy to interfere with the prompt and efficient execution of an important operation; indeed, true sympathy stimulates to the most thorough work.

"True sympathy does not consist in honied words, and feeble, inefficient attempts to relieve from suffering—but in prompt, energetic action, every stroke of which tells upon the work to be done.

"The dentist should be prepared to fulfil the just expectations of his patients,—presuming the patient to be an enlightened one.

"It is true, that persons, intelligent in other matters, but ignorant in regard to their teeth, oftentimes expect too much. It is the duty of the dentist to correct such mistaken or false notions.

"It is a very just expectation of the patient, when he applies to the dentist, that he will receive benefit or good at his hands—either with reference to the preservation of the natural organs, or supplying the place of those lost, with artificial substitutes.

"In no case should the dentist attempt to practice deception upon his patient. This, however, is frequently done, and the ignorance of the patient is given as an excuse. But we should remember, that any one, however ignorant he may be, who finds himself the subject of deception, will have rather a poor opinion of the moral uprightness of the operator, and will not be very likely to place himself in the power of such an one a second time.

"But it is maintained, that it is better, oftentimes, to deceive children, in order to accomplish the desired end; indeed, we are often requested by parents to do this. It is better to employ force, if need be, to perform an operation for a child, than deception: for, it will invariably be found, that when the latter is once employed, for the next operation, force will be required; and if the child ever submits quietly to an operation, it is under the suspicion that a deception may, at any time, be practised upon him; and the operator will find that it will be a long time, even with the most prudent action, before he can secure the confidence of his young patient.

"The dentist should always perform his operations, in the best possible manner, under the circumstances. All operations upon the teeth cannot be made alike perfect. The aim should be, to make every operation subserve a valuable purpose. I have noted elsewhere in this paper, some of the circumstances that will modify the efficiency of an operation.

"The manner has much to do with the success of the dentist. There are a great many little indescribable peculiarities of manner, that should not be overlooked or disregarded. Those little amiabilities that we so much admire in all, should be especially cultivated by the dentist. These are things that will have their influence upon all classes of persons. Have much care for personal appearance. The attire should be clean, neat and tasty, yet not flashy.

"Cleanliness of person should be scrupulously regarded. The dentist who is slovenly and dirty is so at his own cost. Some examples might be given here, but we leave the reader to supply his own illustrations.

"Keep the hands perfectly clean, smooth and soft; any one with rough, stiff hands, cannot manipulate as delicately and skillfully, as though they were in good condition; with the latter condition, the sense of touch is far more perfect.

"Much care is often necessary, to remove unpleasant odors from the hands, that may be contracted from a diseased mouth. No one likes to have dirty, offensive hands in the mouth, no matter how dirty it may be.

"Keep the teeth clean, and in perfect condition. The advice and suggestions of the dentist to his patient, in regard to his teeth, come with rather a bad grace, through a set of dirty, filthy, unsightly, ragged teeth.

"Keep a pure breath, as far as possible; and, in order to do this, use tobacco in no form, nor alcoholic spirits of any kind, nor any of those peculiar little luxuries that render the breath like a blast from a stygean pool. Common decency forbids that any one should blow the contaminated breath, from his own polluted carcass, into the mouth of those of natural tastes and delicate sensibilities. These things observe, and forget not.

"Endeavor to make your patient as comfortable and as much at ease as possible, while in your presence. This is worthy of your attention.

"We often hear remarks like the following: 'I would much rather undergo the operation, than to endure the operator during the time.' Of course, the patient would avoid such an operator, in future, if possible." * * * * * * * * * *

"*Extracting Teeth.—Electro-Magnetism.*"— On this subject the Editor discourses in this wise:

"This subject still continues to attract much attention. The main point does not yet seem to be very definitely settled, some embracing one opinion, some another in regard to it. There is but little known, really, in regard to it as yet, though many are experimenting with it, and doubtless in a very little while much more will be known about it. Of the manner in which it prevents pain, in the extraction of teeth, or any surgical operation, we have heard two or three theories, rather hesitatingly suggested; nothing, however, that bears with it much evidence of its correctness.

"Some have supposed it to be the nervous excitement, diverting the attention from the operation. They suppose they find proof of this in the fact, that in some cases in which it seems to be successful at first, after a time it looses its effect. All who have experimented with it, have found some cases in which it did not produce the desired results. This is sometimes the case in the first operation, and in subsequent operations the desired result is produced. Upon examination, failures will be found to depend upon one of three things. The patient may be an unfavorable one constitutionally.

"1st. There are some constitutions, to which even the feeblest galvanic current is intolerable, even more so than the extraction of a tooth. We have found two or three cases, in which the passage of a slight current through a tooth, would cause the patient to scream with pain; in such we could not expect to succeed in removing a tooth without pain. In other cases we have applied it, and the patient represented it—even a considerable current—as rather a pleasant sensation. One gentleman remarked, 'put it on stronger, there is not enough to feel good,' and there was a pretty strong current on at the time; then we expected a success and we *had it.* The different susceptibilities of different constitutions, to the influence of electro-magnetism, is perfectly familiar to every one who has experimented with it.

"2d. The tooth may be in an unfavorable condition; one expresses the belief that periostitis is unfavorable for the exhibition of electro-magnetism.

"In almost every case where there is diseased periosteum there is pain, and whether in such it mitigates it at all is a question. I have in one case removed a large molar tooth, thus affected, under the influence of galvanism, without pain, and in one case removed a superior lateral incisor without pain, when there had been intense pain, from inflammation of the periosteum, for fifteen hours.

"3d. Intense pain may be produced in almost any case, by an awkward application. In any case the current should be tested upon the patient, before the application is made to the tooth, and no stronger current should be given than is pleasant to the patient; that will usually be a correct criterion; the hands of the patient should be moist when making this test; otherwise it might not be a true one. Every case of failure, I have traced to one of these three causes.

"It is but seldom that the constitutional idiosyncracy above referred to is met with. The second difficulty of course may occur more or less frequently, dependent upon circumstances beyond the control of the operator.

"Another theory, one more ingenious if not more true, is founded upon the fact, that the nerves are the channels of communication between the brain or source of sensation, and other parts, and it is then assumed that electricity is the agent of communication, as upon the telegraphic wire; that the nerves are indeed so many telegraphic wires upon which the subtle agent plays, and that when a stronger current, though it be an artificial one, is thrown on to them, it counteracts the weaker, though it be the natural one, and that the circle of the stronger current, being completed outside of the brain, the weaker current is neutralized; intelligence, of even great injury, would not then be communicated to the seat of sensation. This theory may be squinting in the direction of a solution, but as it is presented now, it is liable to some objections. If this theory was literally correct, we would only have to include any part of the system in an electro-magnetic circuit, to produce insensibility to any operation. I have no theory to present upon this subject. Electricity, in the various forms in which it is presented, is not as tangible as some other things; it is one of the most, if not the most subtle material in nature. We understand but little of its *maneuvers* upon an iron wire, and when it comes to play upon the vital parts, and upon instruments of so peculiar a character as the nerves, about which we know so little, we hope we will be pardoned for not presuming to know all about it. *Nerves, electricity* and *vitality*, all thrown together, and then to account for the modus operandi of the manifestations, is rather more than we have attained to as yet. In connection with this, I will give two or three cases, which will present about the ordinary results, according to our observations.

"*Case* 1.—Nov. 11. Mr. J—— presents the first left superior molar for extraction. He is of a nervous sanguine temperament, very irritable and fearful of pain. The tooth had been aching from an exposed nerve, and very severely. He remarked that his teeth were very hard to draw, and he wished to have the battery applied, if there was any hope or probability of relief. The battery was applied and the tooth removed, and his first remark was, " Why sir, that is perfectly astonishing; it did not give me one particle of pain." He left the office perfectly delighted with the operation. The tooth was firmly set and required a strong effort to remove it.

" *Case* 2.—Mrs. S——, delicate; aged 26, of a nervous constitution, presented three molar teeth for extraction. She desired the application of the galvanic current. The gum was separated about one, when she became very sick and faint. Cold water was dashed upon the face, and camphor applied to the nostrils as restoratives, without much effect; applied galvanism through the arms, slight at first, increasing it gently, till the current was as strong as could pleasantly be borne. She was at once completely restored, and seemed to be much stimulated by the current, and had three large teeth removed, with far less pain than she had ever experienced in a similar operation. She remarked, that after this the extraction of a tooth would have no terror for her if she could have galvanism. She felt more vigorous after the operation than before.

" *Case* 3. Mr. McC——, of bilious temperament, in good health; removed the second superior left bicuspid, pulp dead; no periostitis; had never ached. It was removed without any pain whatever, with battery attached. Has had other teeth extracted, but they gave pain. These cases present about the ordinary results in the extraction of teeth under the influence of electro-magnetism; in none of these was there much pain. I have on record two or three cases in which there was considerable pain, but they were dependent upon circumstances to which reference is already made.

" It is important in the application, that the forcep should not touch the tongue or lips. The most simple method of preventing this is with a piece of pure rubber tube three-fourths of an inch in diameter and three inches long, slipped on the joint of the forceps. We know nothing better than this. We would not be without the battery, and would desire all to try it.

" We are frequently asked about the right to use it; in regard to this, all have about the same facilities for obtaining information, and we know no more about it than others may.

" All we have to say is, do not infringe upon the well-defined rights of any, but always be found upon the side of progress and improvement. T."

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" *Michigan Dental Association.*—The 4th annual meeting of the Michigan Dental Association will be held at the office of Drs. Whiting and Benedict, in the city of Detroit, on Tuesday, the 11th day of January next, at 7 o'clock, P. M.

" As many important changes and improvements have been made in the profession during the past year, a full attendance of the members of the Association is expected.

" The advancement of Dental Science, and the general interests of the profession, being the principle objects of the Association, it is hoped that every regular practicing dentist in the state, will also be present at the next meeting. Respectfully yours,

A. T. Metcalf, *Secretary.*

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*New York Dental Journal*, for October.—Dr. N. W. Kingsley communicates to this Journal an interesting paper on “ Irregularity of the Teeth,” from which we copy as follows. (The illustrations we have had to omit.)

“ Miss T——, aged fifteen, of delicate constitution, face thin and pointed; teeth in the upper jaw very much crowded, every one of them misplaced; the canine of one side and first bicuspis of the other missing, having been extracted to correct the irregularity some time before I was consulted, (remarks on the propriety of such a course in another part of this article;) the molars and bicuspids articulating inside of the lower ones; the distance across the jaw between the second bicuspids, by actual measurement, *five-eighths of an inch.* Gums spongy, on one side swollen, and almost covering the molars and bicuspids, and constantly irritated on the labial side by contact with the lower teeth at each occlusion of the jaws.

“ After treatment, two months and ten days, it presented the following appearance: Gums healthy, articulation of the teeth correct, cheeks very much fuller, an entire change of expression about the mouth.

“ By careful measurement, I find the enlargement of space between the teeth to be as follows, viz:

| | |
|---|---|
| “ Between the second bicuspids, increase | 60 per cent. |
| “ “ lateral incisors, “ | 56 “ |
| “ “ first molars, “ | 50 “ |
| “ “ right central and left lateral, | 50 “ |
| “ “ “ first bicuspid and “ | 50 “ |

“ I have used the term per cent. as the most appropriate to convey comparative distances. The reader will readily understand that 100 per cent. would make the space just twice as great as before.

“ *Treatment.*—A hickory stick, well known to the profession as pivot wood, of proper length, was first placed across the mouth, forced between the second bicuspids, that being the point at which the greatest expansion of the jaw was required. This was renewed daily, forcing in a longer one each time.

Another was added after a few days, between the right first bicuspis and left lateral incisor; also changed from day to day. Three to four weeks sufficed to force them all out, as far as was desirable. A gold band was then bent to a comparatively true curve, reaching from molar, resting on the labial surfaces around to molar, and tied with floss silk to those teeth which had been forced into position by the braces; the braces still remaining to keep them in their place. Elastic rings were cut from small rubber tubing, and slipped over the remaining teeth and drawn outward, and tied to the gold band. After a few days the braces were removed, the band acting upon the teeth in a manner to hold them without the aid of the braces; the band was removed, new ligatures applied, and the teeth cleansed thoroughly twice or three times a week; Reynolds' Dental Detergent used daily as a mouth wash. From four to five weeks brought the teeth all into a good position. A plate was then fitted to a model, obtained in the usual manner, extending back to the molars and across the palatine arch, and tied to the bicuspids. This was worn from three to four months, until the parts became settled and firm.

"The final result was most gratifying to the patient, her friends and the operator. Order and beauty of arrangement taking the place of what resembled a mass of ruins.

"In remarking upon this subject, I cannot avoid contrasting the plan of using braces and ligatures with the inclined plane, which, until quite recently, was the almost universal recourse with the few who attempted the correction of irregularities. From the supervision of a large number of cases, and the observation of its action and results in others, I am led to believe the inclined plane defeats its own purpose. Its action is well known; its intention is to strike the offending tooth at every occlusion of the jaw, and thus force them into position. But as the class of patients requiring treatment is confined to youth, the teeth in a few hours become tender to the touch, when they will sooner go without masticating their food than strike them with sufficient force to produce any movement. And unless all the masticating teeth of one jaw are covered, and very accurately articulated to the others, a worse result is more than likely to happen, viz: elongation of the molars and bicuspids, and entire change of articulation.

"Neither do I regard it as necessary that blocks should be built on the molars to masticate upon, in a case, for instance, where the superior incisors close within the inferior; but a very few days is required in the passing over, when the molars would be required to be kept apart, and there will always be more or less tenderness of those teeth firmly braced, which will prevent the patient from biting with sufficient force upon them to drive them back. A patient would not acquire sufficient command of masticators in so short a time to make them of any material service. Neither would I approve, except in rare instances, of the extraction of permanent teeth that stand out of the arch, because the arch is nearly full without them. In a majority of cases the jaw can be expanded, and they restored to their normal position. I believe nature to be the best model we can follow, and no one can doubt but it is her intention, and, as a general rule, most conducive to the beauty of the individual, that all the permanent teeth should stand in the arch.

"In these days of the rapid increase in the number of those who require the skill of the dentist in developing the beauty of the permanent teeth, it becomes us as a profession to bring to our aid all the resources of science and art.

"It is surprising the vast amount of culpable ignorance daily and practically displayed by the profession, even in regard to the development of the permanent teeth.

"'Removing temporary teeth to make room,' has been the cause of more irregularities than dame nature was ever guilty of.

"It is not twenty-four hours since my attention was called to a very interesting little girl, of five years of age, who has had her incisors extracted some time since, 'so that her permanent teeth may not come in crooked.' To any one at all acquainted with the order of development of the second teeth, it needs no prophet's eye to foresee the trouble that is to follow in that case.

"Before the eruption of the lateral incisors, 'more teeth must be extracted to make room,' and so on until the child cuts its eye teeth, and the parents cut theirs in seeing the sacrifice of those organs which, more than any others, give character to the mouth. The most charitable view of this case is, that the dentist who was employed left off shaving his patrons with a razor but a few years to shave them in another profession, and, therefore, could not be expected to know better—another instance of the beauty of democracy in the dental profession."

*The Paradise of Doctors.—A Fable.—By Jacob Bigelow, M. D.*—A humorous but caustic and deserved rebuke on the criminal practice of "formal, superfluous and mysterious drugging," as practiced by a certain, and we must add, a large class of *heroics* in medicine, whose success is somewhat similar to that of a "crack" shot out West, who for a wager would knock a tin cup off a companion's head, but which terminated in his killing his companion, by firing too low, in putting the ball through the brain, as these worthies put their bolusses through the *bowels*, and often with like results. But the parallel does not end here, for *he* claimed the wager on the ground that he *had* knocked the tin cup off his head, although it was done by knocking the poor fellow over and out of existence; so these gentlemen present their bill and demand their pay, but such bills, we would suggest, should read after the style of the Irishman's charge for doctoring a horse, "To curing your honor's mare till she died." But we were going to say, and will now say it, that in the little work alluded to above, we find the following somewhat extravagant but suggestive sentence:

"A century hence, the mines of gold will be sought for, not in California, but in the cemeteries of the old cities, where it has been geologically deposited under the industry of dentists."

The following we are sure will afford some amusement; but we wish it distinctly understood, that if it should reflect in any wise on the general custom (and one that would be more honored in the breach than in the observance, we think,) of getting up diplomas in a *dead* language, (no reflection intended,) instead of from "the well of English undefiled," the blame is not ours.

"*A Rich Joke.*—In one of the numerous counties in Georgia, not many years ago, a medical practitioner, not a graduate, sued one of the patrons for what he owed him, in a Justice's Court. A limb of the law, suited to the locality and the client, undertook the defence, and contested the claim on the ground of the disciple of Æsculapius *not being a regular graduate.* Our friend, the Doctor, felt nonplussed. All his rides, his valuable time and doses of physic seemed to have been bestowed for naught. But patience and perseverance overcome all things, and necessity is the mother of invention. The day of trial arrived. With an air of triumph, the defendant's lawyer paraded his authorities, and made a crushing argument, utterly demolishing the poor M. D., as he thought. When he had concluded, the Doctor approached the Justice, and depositing what he claimed to be his diploma, with a respectable bow, politely retired to his seat. The lawyer looked at the formidable document, scrutinized it several minutes, while big drops of sweat rolled down his face. Unable to dispute its authority, or find a flaw, he handed it in despair to the Justices. These gentlemen looked at the mysterious characters and turned the sheet in every possible position. After having examined it to their satisfaction, and privately consulted over the case, they decided *in favor of the plaintiff.* The friendly paper was a *circular in reference to Job David's Plaster, in Dutch!*"

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"*Dr. William Bradley*, who was many years ago an eminent dentist in this city, and the first who ever practised that profession here, died in Philadelphia last week. He was a man of much skill in his profession and highly estimable in private life."

"*The early Dentists of Providence.—To the Editor of the Journal:* Dr. William Bradley, whose decease was mentioned in yesterday's Journal, was not, as stated, the first dentist who practiced in this city. Dr. Isaac Greenwood was, so far as the writer has by his researches been able to ascertain, the first who followed that art as a distinct profession here. His advertisement appears in the Providence Gazette as early as the year 1788, and in it he alludes to his having had nine years' practice in his business; whether in Providence or not, does not appear. He was the brother of Dr. John Greenwood, of New York, who, in 1789, made an upper and lower set of teeth for General Washington. Their father, Isaac Greenwood, was the first practical dentist in Boston.

"But of Dr. Bradley's superior skill, the writer, as one of his successors, can bear a willing testimony. Much of his work comes under the observation of the dentist of the present day, and many teeth filled by him under favorable circumstances, though the work was performed thirty or forty years ago, are still preserved, and the fillings as good, apparently, as when first inserted.

"He leaves, even now, when modern science has done so much for the dentist, no superior in this, the most difficult branch of his profession. "W. H. H."

The above are from the R. I. "*Providence Journal*," of October 26th and 27th, which, besides being a tribute to the memory of the deceased, contains some matters of interest in regard to the early practice of dentistry in Providence that may not be generally known.

In that very attractive and instructive book, "*Brazil and the Brazilians,*" by Kidder & Fletcher, we find the following. The writer, in alluding to his meeting with a physician from Pennsylvania, in the interior of Brazil, says:—

"If Dr. —— was surprised at my unexpected arrival, I was no less astonished to learn that another American had arrived that day, who was perambulating the province, practicing his profession of dentist. In what nation pretending to civilization will you not find the American dentist? I may be permitted to indulge a little patriotic pride when speaking of this profession, whose members, more than any other of my compatriots, may be found in almost any portion of the world. Their superior merits have been repeatedly acknowledged by Englishmen and Frenchmen of the same profession. The secret of their perfection and success has been owing to various causes, not the least of which is the regular dental colleges which exist in the United States, being the first institutions of the kind ever founded, and until recently the only ones in the world. I have met with American dentists at Rio de Janeiro, Valparaiso, and in New Granada. At Paris, the dentists *à la mode* are Americans. A sickly schoolmate with whom, in years gone by, I had dug out many a page of hard Latin, is now the most popular dentist in Berlin. On the Continent, in interior cities, you will meet with Yankee teeth-replacers and teeth-extractors; and, if the professor or doctor has not the advantage of being a citizen of the Great Republic, he publishes in emphatic characters in his advertisements, that he has studied his profession in the United States, or fills molars *à la mode Americaine.*"

## Selections and Abstracts from Medical and other Journals.

BY S. S. WHITE.

"*Treatment of Fractures of the lower jaw.*—By W. W. ALLPORT, Dentist.—*Editors of the Chicago Medical Journal*:—In the August number of your Journal, Dr. M. O. Heydock reported a case of fracture of the lower jaw, at its neck.

"This was a case of peculiar interest, from the fact that it had been under treatment for two weeks, and it was found that no ordinary bandages or appliances would keep it from swaying to one side; of course a deformity would have been the result of such practice. At the expiration of this time, Dr. H. called on me, with the patient, and I constructed for her two plates, as described in said report, and proved to be just what was required for the successful treatment of the case.

"On the 19th of September, Mr. A. G. received a blow upon the right side of the lower jaw, which fractured it through the median line. The case was seen by Professor Freer, who applied the ordinary bandage used in such cases, but found it would be impossible to secure a satisfactory result in this way, and at once placed the patient in my hands.

"When the case came to me, I found the right side of the jaw depressed about eight lines below the left, and the muscles acting with so much force, that it was found difficult to bring the two sides into position, so that the lower teeth would articulate with the upper correctly, and when in position, difficult to keep them so.

"With the aid of an assistant, the fracture was adjusted, and an impression taken in wax of the lower teeth, also one impression of the upper teeth, and from these, plates are swaged up, similar to those used in the case of Mrs. H. These being brought into proper position on the teeth, were removed and soldered together. Thin layers of gutta percha were then warmed in hot water, and placed inside of each plate and introduced into the mouth, as warm as the patient could bear; the jaws were pressed firmly together, until the teeth articulated perfectly, *through the plates*, which had been filed away for the free egress of the ends of the teeth, and were held thus until the gutta percha had been thoroughly cooled by the application of cold water. This done, the patient could not open his mouth, and of course the jaw was held firmly in place, which rendered union perfect, and a natural articulation of the teeth. The plate was removed on the 18th day.

"In the case reported by Dr. Heydock, it was supposed that the separation of the upper front teeth, so as to admit of a bar or wedge being passed between them, from the plate on the lower jaw, was of service; but from this case it would seem that the wedge can be dispensed with, for the gutta percha insinuates itself into all separations, and adapts itself to all the irregularities and inequalities of the teeth, in such a way, that the patient cannot move the lower jaw, and of course it is held firmly wherever it is placed, making this appliance equally serviceable whether the front teeth are separated or not.

"The fact that the lower jaw hangs loose, and its muscular attachments draw it in various directions, renders the treatment of the fracture of this one far from being the simplest in surgical practice. In fact, I think that any experienced surgeon will bear witness to the correctness of the statement, that there have been as few cases of perfectly satisfactory results, in the treatment of fracture of the lower jaw, as in almost any other class of broken bones. But if the upper jaw be made the foundation, to which the lower jaw can be immovably attached, by the application of plates constructed as above mentioned, the treatment of these fractures can be made comparatively simple and much more satisfactory.

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*Uses of Metallic Threads in Olden Surgery.*—"In adjusting fractures of the lower jaw, Hippocrates, among other more important directions, advises that, after the broken ends of the bone are placed in apposition, the teeth on either side of the wound should, if they be disturbed and loosened, be tied together, two or more of them, with a gold thread. Paulus Ægineta, and after him various Arabic authors, recommends a thread of gold to be applied in the same manner for the same injury; and Wallner has in modern times, for the same purpose, bound a silver thread around the front teeth in central fractures of the lower maxilla."—*Med. News.*

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"*On Sudden Accumulations of Fluid in the Sub-Maxillary Duct.* By Jas. Hakes, Esq., Surgeon to the Northern Hospital, Liverpool. —[Diseases of the salivary glands are little noticed by medical writers, but, in fact, with the exception of that form of inflammation of the parotids, called mumps, and after the administration of mercury, we seldom see them affected. Suppuration is very rare, as are also tumors, which, moreover, generally affect these glands only secondarily. Cretaceous deposits, and obstructions of their ducts, from these or inspissated secretions, are sometimes found. Ranula is now supposed to be an encysted tumor, having no relation to the sub-maxillary gland, other than that of propinquity. A second form of this may occur in the mylo-hyoid space, not projecting so much into the mouth as externally.]

"These are the only fluid tumors occurring in the mouth in connection with the salivary apparatus, of which I find any mention in the works of surgical writers. There is, however, another, remarkable in the mode of its occurrence, with which it is important that every surgeon should be acquainted, namely a collection of fluid suddenly developed by an obstruction of the salivary duct. I have not been able to meet with any case recorded, nor have I read any remarks which would suggest to me the idea that it was known to surgeons. I can scarcely suppose that, in the extensive practice enjoyed for many years by the eminent men who have written their experience for our benefit, examples of it have not now and then occurred, seeing that in the past few years I have witnessed it in three or four persons. But if so, it is difficult to conceive why they have not published the cases, for they cannot fail to make a great impression on the beholder, and ignorance of their existence may place a surgeon in a dangerous position.

"A consideration of two or three well-known facts cannot, I think, fail to make us regard the frequent occurrence of this sudden accumulation, as by no means improbable, and also lead us to anticipate the time at which they might be expected to take place.

"The existence of salivary concretions is one of these facts; it must not, therefore, surprise us if at times they occupy and block up the small ducts which carry off the saliva from the glands. Again, the secretion of saliva is acknowledged to be pretty copious. Authorities vary as to the quantity secreted in twenty-four hours, some stating the amount as low as twelve ounces, others as high as eighteen. Though the secretion proceeds constantly, many things are known to increase the amount and rapidity of production, and especially the presence of food in the mouth, and the process of mastication during a meal. We have then but to suppose obstruction of the duct to take place about the time of taking food, and we have all the circumstances present necessary for establishing such an attack, if only the ducts are capable of sudden and rapid dilatation; this can be proved by experience alone, and however much we might feel inclined to say with Mr. Erichsen, when speaking of ranula, 'It is not easy to understand how so small a duct can be dilated to so large a size as is occasionally attained by these tumors,' I think the perusal of the following cases will leave no room to doubt the fact.

"The first time that I saw this disease was in the person of a gentleman living at St. Michael's Hamlet, near Liverpool, to whom I was summoned in great haste one evening. He had been taking tea, and before the meal was over, began to feel uneasiness about the mouth, and felt a swelling in the mouth and under the ramus of the jaw, in the region of the sub-maxillary gland, which increased so rapidly as to alarm him. While he was awaiting my visit, he had the swelling rubbed, with the effect of causing an escape of fluid into the mouth, and a subsidence of the swelling in the neck, so that on my arrival, I could perceive nothing beyond a little fullness in the sub-maxillary region. Continuing the friction, the swelling disappeared. I am not aware that he had ever previously suffered from the complaint, or since had any return. I made no examination of the duct but by the eye, and did not see any calculus.

"The second instance occurred six or seven years ago, in a youth when only six or seven years old. He was eating his dinner, and in the midst of it began to complain of a stiffness of the mouth and difficulty of deglutition; his mother very soon noticed a distinct swelling under the jaw. As some of the inmates of the house were at the time suffering from mumps, this was supposed to be a sudden attack; but on account of the suffering it caused, and its rapid growth, I was sent for. On examining the orifice of the sub-maxillary duct, a small white concretion, not larger than a pin's head, was discovered obstructing its orifice; this was easily removed, a quantity of saliva escaped into the mouth, and the patient was immediately relieved. A year or two afterwards, while he was at tea, the same thing recurred, but on this occasion the calculus was larger, and rather irregular in shape. After endeavoring for some time to remove the calculus, but failing, partly on account of the nervous restlessness of the lad, I fixed it by means of a pair of bull-dog forceps, and then cutting through the duct beyond the calculus, removed it, together with the orifice and enveloping portion of the duct. He has had no return since, but his mother informs me that he sometimes feels a little uneasiness in the situation of the gland, and gets rid of it by pressing underneath the margin of the jaw, which seems to displace something.

"My third case, which occurred some years since, was in some respects the most remarkable of all, and though I made no notes of it, was accompanied by circumstances sufficiently ludicrous to fix it indelibly in my memory. A prostitute called on a surgeon then living in Liverpool, about ten o'clock in the morning, for his advice. She stated that while she was taking her breakfast, she began to feel uneasiness in her mouth, to which was very soon added swelling under the tongue and under the jaw. As she continued eating, the swelling increased, and her sufferings became very severe. When she reached his house, there was a considerable swelling both in the mouth and under the jaw; she complained of intense pain about the jaws and neck, a sense of suffocation and difficulty of swallowing, and her speech was materially affected. He looked into her mouth, and seeing there was some slight ulceration of the tonsils, was seized with the impression that the internal carotid artery had become perforated by an extension of the ulceration, and that the blood, though prevented by coagula or some other cause, from escaping into the mouth, was being pumped into the cellular tissue of the neck, which accounted to him for the progressive increase in the size of the swelling as he watched her. Overcome with this idea, his consternation was extreme, and his looks and manner communicated his alarm to the patient. No wonder, therefore, that the summons to his assistance was urgent, and would brook no delay. I took with me the needful instruments for ligaturing a vessel, though pretty confident that I was going to see a case like those I have already related. On reaching the surgeon's house, I was hurried down to his scullery, and there, to all appearance, he was endeavoring to destroy a young woman, partly by throttling, and partly by drowning. They were both standing near the sink, her head being bent down beneath a tap of cold water, the full stream from which was pouring over her bare neck and shoulders, and saturating the upper part of her dress, while he seemed to be strangling her with his fingers, though he informed me he was restraining the hemorrhage by compressing the carotid arteries. It was not without misgivings that he permitted me to release the poor wretch from the water-tap and his fingers, and when, having looked into her mouth, I recommended an incision to be made in the swelling, I believe he thought I was soliciting him to commit murder. However, his agitation after a time subsided; he was able to take a calm view of the case, and saw the correctness of my diagnosis, and opened the swelling freely in the mouth, from which there escaped at once several ounces of viscid saliva, which of course quite relieved all her distress, and removed all the swelling. We looked at the orifice of the sub-maxillary gland, but could not find the cause of the obstruction there. I had no probe small enough to pass along the duct."—*Braith's Ret.*

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*Late Eruption of Deciduous Teeth.*—"The patient, Matilda T——, was twenty years old, and four feet one inch high. Her mother states of her, that she had been 'hurted in her birth;' she made no effort to talk before her fifth year, and could not speak distinctly until her twelfth; her deciduous teeth did not appear until she was eight years old; at this age, too, she made her first essay to walk with crutches, with which she could not dispense until she had attained the age of ten. She menstruated first in her eighteenth year, thence, to the period of her confinement, only four times at irregular intervals, and in small quantities. From the age of twelve to twenty, she enjoyed uninterrupted good health."—*London Lancet.*

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*Maclise on Dislocations and Fractures of the Lower Jaw.*—"In reference to the lower jaw, he observes: 'The only direction in which a complete dislocation—that is in respect to both temporo-maxillary joints—has been noticed to occur in the lower jaw-bone, is *forwards*, into the temporo-maxillary fossa. The extreme rarity of its occurrence; indeed, the fact that it never happens in any other direction, may be accounted for anatomically. The lower jaw is a duplex or symmetrical bone, and the temporo-maxillary articulations are formed symmetrically also; so that the same guards which prevent displacement of the one condyle in an internal or backward direction, act in that capacity for both sides of the jaw, as long as no fracture has occurred.' This is all true; there are one or two instances on record of dislocation backwards, but with simultaneous fracture of the bony meatus auditorius."—*Brit. and For. Med. Chir. Rev.*

"*An Edentulous Lower Jaw without Mental Foramina.*—The specimen was taken from a subject above ninety years of age, during the dissection of which no trace of the inferior dental nerve on the face could be found, and upon maceration, the mental foramina were found entirely obliterated. Mr. Heath considered the specimen of interest as bearing on a portion of necrosed lower jaw removed and exhibited by Mr. Bryant, in which both mental foramina were included, without any diminution of sensation in the chin. In the present instance, no nervous supply to the chin could be detected."—*London Lancet.*

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*Hereditary Syphilis.*—"Mr. Hutchinson exhibited a number of plaster casts of the mouths of children, to illustrate hereditary syphilis, and its effects on the development of the teeth. These casts and drawings were taken from cases of undoubted hereditary syphilis. A protracted inflammation of the mouth was, he said, a very common symptom in this disease, extending to suppuration and exfoliation of the crowns of the teeth. A committee of four gentlemen was appointed to examine into Mr. Hutchinson's cases."—*London Lancet.*

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"*Action of Chloroform.*—From recent experiments by Dr. Faure, (*Gaz. des Hop.*, July 10th, 1858,) it appears that chloroform produces anæthesia, not by any direct action upon the organism peculiar to the agent itself, but by a state of asphyxia caused by the action of this substance upon the respiratory organs alone. Or to explain: if an animal be caused to inhale chloroform into one lung only, by means of a tube passed below the first bronchial bifurcation, anæsthesia will not be produced, however long the agent may be applied. Hence, chloroform does not, of itself, directly cause anæsthesia. In other words, it differs from opium, arsenic, strychnia, belladona, etc., which act directly into whatever part of the system they are introduced. Either of these substances injected into either lung, would be absorbed, and, entering the whole circulation, would produce their peculiar effects as well, and as certainly, as though both lungs were the mediums of communication with the system. But, although chloroform should entirely suspend respiration in one lung, the other being left free to the action of pure air, would maintain the system in nearly its normal state, from all of which, determined by actual experiment, it is concluded that chloroform acts mediately by inducing asphyxia, of which anæsthesia is a premonitory symptom. The action of chloroform is recognizable by the eye. It produces instantly, in the pulmonary capillaries, a *stasis* of semi-coagulated blood, a *stasis* in consequence of which respiration becomes mechanically impossible. When chloroform alone is carried into both lungs, respiration is totally suppressed, asphyxia is imminent, and anæsthesia is the first symptom.

"*Corollary:* Whatever will remove this peculiar stasis, if applied within a certain period, will restore respiration. The vapor of ammonia, acetic acid diluted, and of water, are remedies, also pure air or oxygen gas; any of these should tend to remove the asphyxia, if applied before respiration has entirely ceased. After that, the 'ready method' of Marshall Hall would promise most hope of restoring respiration."—*Pacific Med. & Surg. Jour.*

"*Death from Chloroform.*—By JOSIAH W. STROUT, M. D.—From the peculiarities of the following case, as well as to further arouse the fears and excite the caution of the profession in the use of chloroform, I am induced to report it.

"A gentleman, named Welsh, aged about thirty-five, called upon me on the 24th of April, for the purpose of having a ball extracted from his wrist-joint, which he had received nearly two years before in a drunken brawl. He informed me that although the ball could not be felt, he was satisfied of its presence, as when he had worked for any length of time, his wrist became painful and almost useless. He seemed determined and anxious to have the effort made to extract it, whereupon I concluded to do so the next morning, as it was then near night. He then said I must give him something to prevent his feeling the pain of the operation. I told him he could, if he chose, take chloroform, but rather dissuaded him from its use, as he seemed so determined in the matter that I thought he could endure the operation without it. He, however, did not think that he could, and upon his saying that he had taken it once before, (soon after he was shot,) I agreed to administer it. Another conversation ensued between us in the course of the evening upon the same subject, in which I told him of the ill results which had sometimes occurred from the use of chloroform, although I had never in the course of my practice experienced any such from its use.

"On the next morning, after all necessary preparations had been made, I again endeavored to dissuade him from its use, but with no avail. I therefore seated him by a table. The chloroform was administered by inhalation through a sponge at the hands of an assistant, I, the while, observing the impression upon his pulse. After a few inhalations I pinched him slightly upon the arm, asking him if he felt it; he replied rather hurriedly, and in quite an irritated manner, 'yes, I did! you pinched me—don't you do it again.' I then let him continue the inhalation a few seconds longer, and again pinched him, at which he said nothing. I then ordered the removal of the sponge. He seemed to be chloroformly impressed; his eyes were upturned and partially closed; his respiration somewhat heavy; his muscles relaxed and his pulse reduced. He sat in this condition about half a minute, not more, I having merely time to give his maimed arm into the hands of an assistant, and to reach for my scalpel, with which to make the contemplated incision, when he arose from his seat in a violent rage, grasping the basin of water and upsetting the table upon which it stood; his anger seemed to be turned towards me; he hurled the basin at me with all his force, accompanying the action with fierce glances and muttered oaths; he, presently, seemed to recover himself; a change came over his face, an expression of sorrow took the place of that of rage which had distorted his features, and he said, "Doctor, is that you? I am very sorry for what I have done; I did not know what I was doing; give me your hand and let us be friends, and come and get this ball out." At the same time he approached the seat from which he had risen, and whilst making the effort to sit down, fell back in what was apparently a fainting state. I, supposing such to be the case, ordered him to be laid in a recumbent position, and applied water freely to his face, but I soon discovered that it was not an ordinary case of syncope, for his lips and face became livid, his pupils dilated, and a foaming ensued from his mouth; he gasped two or three times after he was laid upon the floor; various means of resuscitation were used with no avail—the man was dead.

"I am informed by persons who have known him for a long time, that he was much addicted to the use of spiritous liquors, and one of my assistants who was well acquainted with him, tells me that his actions after he rose from his seat, were very much like those usually produced in him by the combined influence of whiskey and anger. I regret that a *post mortem* examination could not have been held, but his family were not near enough for their consent to be obtained in time. I am satisfied that he was not under the influence of chloroform at the time of his death, yet, at the same time, I believe it to have been the exciting cause of his death. His death, I believe, was brought about by a condition in connection with his brain similar to that which exists in apoplexy. His habits of drunkenness doubtless weakened the blood vessels of the brain, and rendered the brain itself more susceptible to the influences such as chloroform induces.

"The chloroform used with this patient was, to all appearances, a pure article; it was procured from an accomplished druggist, and possessed all the sensible characters of the genuine. The exhibitions upon this patient, from its inhalation, were very similar to those sometimes produced from inhaling ether or the protoxide of nitrogen.—*Jour. of Med. Surgery, Nashville.*"—*Maine Med. & Surg. Reporter.*

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*Death from Chloroform.*—"A fine young woman, having obtained the consent of a medical practitioner for her having chloroform administered during the extraction of a tooth, went to Mr. Geo. Keeling, a druggist and dentist, (at Epsom,) who forthwith administered chloroform, or rather allowed his patient to assist herself to the vapor by means of a napkin. She became suddenly insensible, the tooth was extracted, and the patient sunk back dead."—*Med. News.*

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"*Chloroform in Dentistry.*—There is an impression abroad amongst dentists that every man is his own keeper, and that his life is in his own hands. Lamartine says that it is strongly characteristic of the weakness and imperfection of humanity, and typical of our earthly nature, that man comes into the world impotent to save himself, or to add one day to his life when beneath the edge of the mortal shears, destitute and helpless, but armed with the power of annihilation and self-destruction. This privilege the dentists of some sort are disposed to grant freely to their dupes. Chloroform is undoubtedly a mortal agent, an agent which may become inimical to life. Its risks have but too frequently and too fatally been shown by many recent accidents, and especially by the unhappy death at Epsom, on the 27th ult., of a person, to whom it was administered by a druggist. There is a moral as well as an intellectual side to our art, and to the art of the true dentist. It is time that the ethics of chloroformization were established. The extraction of a tooth is not an operation which in any way bears upon life; it is not in itself attended with any risk. The deaths which chloroform has occasioned, when administered to facilitate this process, are unbalanced by any corresponding gain of equal import. The moral duty of the dentist is therefore clear. He has not the right to risk the patient's life for the extraction of teeth. The timidity of the patient or her pressing entreaties are not more germane to this consideration of duty than her rank or her wealth would be. In the cause of life everything is permissible. It is justifiable to refute the arguments of her ladyship; it is right to give a flat denial to her grace. However crooked those cruel fangs, they are less pitiless than the fangs of death; and though the patient turns rebellious from the door, it is better than that she should have found there 'that bourne whence no traveller returns.' It is chiefly our fashionable ladies who demand chloroform. This time it was a servant girl who was sacrificed; the next time it may be a duchess. If a patient should press urgently for any dangerous poison it would not be administered to her, notwithstanding her own personal responsibility. Nor should chloroform, although only probably dangerous to life. Henceforward we think that this must be looked upon as a matter of conscience amongst operators. To our thinking they are bound to withhold chloroform for the extraction of teeth by every consideration of right and moral responsibility."—*Lond. Lancet.*

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"*Another Chloroform Case.*—Another dentist, a Dr. Webster of Montreal, has been convicted of an attempt to commit a rape upon a patient while under the influence of chloroform. It is insisted by those who understand the effects of chloroform that in most cases outrages like these are vagaries of the brain, and exist only in the imagination. If so, why will dentists continue to run the risk of administering chloroform to patients who are unattended? If not, why will females claiming to be respectable, subject themselves to the risks which numerous convictions seem to show result from their taking chloroform, when not in the presence of third parties."—*Journal of Commerce.*

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"*Chloroform in Poisoning by Strichnia.*—A lad, aged 15, swallowed by mistake a powder containing about two grains of strichnia. Dr. Jewett saw him thirty or forty minutes afterwards, and found him with a livid countenance, protruding and injected eyes, a full, strong and irregular pulse, and his skin bathed in perspiration. Violent tetanic spasms, like the effect of shocks from an electrical battery, occurred in rapid succession. If they relaxed for a moment, the slightest touch of the surface, or presenting anything to the mouth, brought them on again with redoubled violence. Chloroform, inhaled with difficulty at first, subdued the spasms in ten minutes, these returning whenever it was suspended. Partial anæsthesia was kept up for about four and a half hours, when it was finally discontinued. The recovery of the boy was rapid."—*Braith. Ret.*

*Chloroform in Lock-jaw.*—" The '*Abeille Medicale*' details a case of tetanus treated by chloroform. The inhalations were continued at intervals for seven days, with great relief. At the end of this period the spasms resumed a remittent type, and the cure was completed by the administration of the sulphate of quinine. A curious fact occurred in this case : the patient, who, when in health, labored under a slight degree of deafness, could during his illness hear all that was said in the room, even in a low whisper. This sensibility of the ear gradually disappeared as the case progressed."—*Lond. Lancet.*

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" *Galvanism for counteracting pain in the Extraction of Teeth.*—[Read before the Suffolk District Medical Society, and communicated for the Boston Medical and Surgical Journal.] By A. C. Garratt, M. D.—I wish to lay before this Society some practical results of my experience in the use of galvanism, particularly for allaying pain in the extraction of teeth. During the past few weeks, several of the dentists of this city have brought persons to my office for me to apply electricity from some of my batteries, while they extracted the teeth, and in some instances have also requested me to attend, at a given hour, at their respective offices for the same purpose. The whole number of patients that I have applied it to for this purpose, is about twenty-six; the number of teeth operated upon, sixty-four. The first was a most interesting case—Mrs. W—— , the wife of one of our distinguished lawyers, a noble-appearing, but nervous lady, attended by her mother, and brought to my office by Dr. Dillingham. This lady had fourteen teeth more or less decayed, and much denuded of their gum by the long ravages of tartar or morbid secretions in the buccal cavity ; each tooth exquisitely sensitive, even to the touch of an instrument, and all of which she greatly desired to have removed at once, for given reasons. The first tooth attempted was extracted with gentleness and care, and the electrical current was very feeble. The electricity was felt, and she evidently suffered pain, although she expressed a sensible relief, judging from her past experience in having her teeth extracted. I increased the current very considerably, and the next tooth came out with astonishing success ; no sort of pain was experienced. She rather supposed the instrument had slipped off, and the tooth was yet in the jaw. This must have been the first successful operation in Boston. The remaining twelve were extracted with the same favorable result, invariably. The fangs of these teeth had that bloody appearance which indicates long inflammation of their periosteum and old ulcerations. I observed that as each tooth was about to be taken hold of, she was very particular to ascertain if the current of the battery was in actual contact and readiness. No prostration, nor even fatigue, followed the extraction of all these teeth, for they came out entire. So delighted was she with this process, that she offered to pay twice the fee asked, and her husband called a few days after to express his thanks for the great relief afforded to his wife. When catechised closely, to ascertain from her the precise sensation or suffering of the operation, she said '*she felt no sort of pain,* but quite a disagreeable sensation at the instant of grasping the tooth, yet no worse than it would have been to touch each tooth with the instrument in the ordinary way.' She had taken ether on former occasions, but preferred this very decidedly.

"One young man, belonging to the Navy, said he was very sensitive and nervous, and wanted a tooth extracted without either pain or going to sleep. But he said, "*it did hurt him very badly*;' he also vividly described feeling the tremulous sensation of the galvanic current. He never had had a permanent tooth extracted before.

"Another unsuccessful case, was a very intelligent young gentleman, of noble frame and fine form, but of delicate health, apparently of German extraction. He wished to have two teeth extracted in this way, because his teeth were so firmly set that they usually broke in extracting, and he was professionally advised not to inhale ether. His first tooth was taken hold of, and the current applied, but it fractured after a very severe and protracted tug at it by the dentist, leaving the roots solid in the jaw. He appeared to suffer, as he said he did, most intensely. The electricity gave no kind of relief, except from 'the moment of the disagreeable application of the instrument,' until the moment of fracture, which, however, was some seconds of time, and there was no pain, as he said, but at that instant of course, the current was cut off, and the pain was awake again in all its fury, as it is wont to be on the occasion of such accidents. He went away much distressed.

"Another very interesting case was a young lady who had come with her father some forty miles to get her teeth extracted by this process, as they had heard it was practised in Boston. The first tooth, an upper molar, was taken out with perfect success; but after washing the mouth with water, and no little talk, the next was operated upon as we supposed all right, when to our surprise, she screamed and almost fainted, from the pain of this second molar tooth. At once it was discovered by her father that there had been no contact of the galvanic current. The pad had fallen, unobserved by us, from the back of her neck, outside of her dress into the operating chair, before the operation commenced. As soon as she was sufficiently recovered, she submitted again to the trial, and three more teeth were taken out, without any sort of pain or disagreeable electrical sensation. She said it seemed 'more like taking wooden pegs out of her jaws than like pulling teeth.' This appeared to all present a fair test case. She said she would never forget the different sensations between having teeth extracted with and without the galvanism.

"Two other cases were not very successful, from causes I need not here mention. But in the great majority of all these cases, there was expressed a great relief from anything like pain, and a general satisfaction with the result. I should judge that about one-third of all who have been operated upon in this way, persist in saying that '*there was no sort of pain whatever*,' while others, perhaps as many more, affirm that there was no actual pain, but they felt a sensation, by no means agreeable, at the instant of applying the forceps. Others experienced also 'a moderate degree of pain,' but they say 'by no means very bad, and quite bearable.' More than twenty of these persons when asked for a candid expression of their experience, said that this gave very decided relief in extracting teeth, and that they preferred to trust it again if ever needed. All of these persons had had teeth extracted before, and some of them had inhaled chloroform or ether on former occasions.

"The box of teeth I place here on the table for examination, contains some 30 or 40 of those *actually extracted without pain by the aid of galvanism.* It is evident that such teeth ordinarily give great pain in extracting. The rationale I am not prepared to give. No known current or shock of electricity, or galvanism, however modified or applied, has been known to be instantaneously paralysing, or benumbing to pain under ordinary circumstances, without being also disorganizing more or less, and hence dangerous. We make use of no such current or shock. But a to-and-fro current from a Smee's Battery, with the strongest pole attached to the forceps; and contact made exactly at the instant that the instrument fastens upon the tooth, does succeed in taking away three-fourths of the awful pain experienced in having teeth extracted. To have uniformity of success, the electrical current must be gentle, and adjusted, as to intensity, for each case according to the experience of the operator; and this current must be insulated from the hand that holds the instrument, as well as from the lips and gums of the patient, so as to spend its exact quantity of force on the tooth only. It is certainly a nice operation to succeed, but I believe, when carefully and accurately performed, it will more generally succeed than in these cases I now report. If any one item in the process is not observed, the whole is a failure."—*Bos. Med. and Surg. Jour.*

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"*Anæsthesia from Galvanism.*—During the last week Mr. Marshall, of University College Hospital, following out the principles now so widely discussed of tooth extraction under the influence of electricity, has made some interesting observations with the view of testing the powers of the electric current to modify the sensibility of parts operated on *by the knife.* The operations, nine in number, performed under its influence, include the incising of abscesses and carbuncles, the removal of necrosed bone, and also of a fatty tumor of considerable size. The general effect has been to modify the pain of ordinary incisions, rendering the suffering less acute. In one case this effect was very striking. On some occasions, however, the pain was aggravated, apparently owing to the strength of the current employed. Perfect insensibility was never produced, and the results claim notice as those of early trials only. Mr. Marshall's first operation was performed on the 9th instant. The coil apparatus was used, one pole being connected with the knife employed, and the other placed either on the patient's neck or in his hand—the current being, of course, intermitting. Mr. Marshall has promised to furnish us with a more detailed account of these cases."—*Med. News.*

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"*Anæsthesia by Compression.*—M. Jacowski, a practitioner of Paris, has revived the practice of compression as a means of preventing pain; and in this way several instances of entirely painless extraction of teeth have been effected. The compressor he employs consists of two pads, connected by a steel spring, very much like a hernial truss.

The spring is passed behind the head, and the pads are applied either within the meatus auditorius on each side, or behind the rami of the jaw in front of the ears."—*Charleston Med. Journal and Rev.*

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"*On the painless Extirpation of Cancerous Growths.*—By Dr. JAMES ARNOTT.—[In the combination of long-continued congelation with caustic, we have a means of speedily extirpating cancerous growths, unattended with pain, and producing neither shock, inflammation or permanent debility.] * * * * * * * *

"My first and principal object was to show that cancerous growths may not only be extirpated by congelation and caustic, without pain, but if not absolutely without danger, with much less danger than accompanies the means usually employed for this purpose."—*Braithwaite's Retrospect.*

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"*Suit against Dr. Davis for using Sulphuric Ether.*—Dr. W. T. G. Morton has lately entered a suit against Dr. Davis, of the U. S. Marine Hospital at Chelsea, for infringing his *patent* for the use of ether as an anæsthetic, and the damages have been laid at $5,000. A correspondent of our excellent exchange, the Boston Medical and Surgical Journal, who signs himself W. E. C., thus notices the suit and its animus; with his entire view of the action and its results, we heartily agree.

"This is a strange proceeding, surely, after the boast of his friends, a few years since, when, striving to excite 'palpable sympathy' for him, they asserted he had given this precious boon of anæsthesia 'to be as free as heaven's own sunshine.' We have never yet known it to cost any one $5,000 for the privilege of using 'heaven's own sunshine.' But this suit has other import. What will be the consequence if it is decided in favor of Morton? If Dr. Davis can be mulcted $5,000 for its use in the U. S. Marine Hospital, what sum will the Surgeons of Massachusetts General Hospital have to pay for using it? Or, will they be let off, in consideration of a certain *quo* for a certain *quid?* But should they be let off, there would still be enough Dr. Davises left, viz: the city institutions, all operators in surgery, all dentists. These in turn, and, in short, all who ever use anæsthetics, would be equally liable with Dr. Davis for a certain number of hundreds or thousands of dollars, in proportion to the frequency with which they handle the scalpel or pullikens. Such is the aspect of the affair, at the best of it; and, limited to it alone, we might hope that Morton will be cast, and judgment given in favor of Davis, and that anæsthesia may still be 'as free as heaven's own sunshine,' and humanity still enjoy its boon."

"The same writer, in his first letter upon the subject, states that the daily print which first noticed the affair, added, that it was an amicable suit, gotten up with the consent of Dr. Davis for the ulterior views of Morton. This grave charge, which, if true, would have justly brought upon the former the censure and condemnation which must forever rest upon Dr. Morton, has, we are glad to state, been denied, and W. E. C. makes the *amend honorable* in a late issue. It is distinctly affirmed, however, and the allegation has not been denied nor refuted, that this unscrupulous charlatan, Dr. Morton, positively and personally 'made a distinct request of a medical gentleman, high in public office, for permission to enter an amicable suit against him, in order to establish a prestige for him, (Morton,) under which he could more successfully and effectively carry on his operations in Congress. The offer was spurned with a scorn and contempt commensurate with the high honor of the man to whom it was made."

"Dr. Morton's conduct will be regarded as still more dishonorable when it is remembered, that co-incident with this suit for damages, at the same time that he is attempting to assert his exclusive rights to the use of sulphuric ether as an anæsthetic, and to subject all who use it, without his permission, to an annoying prosecution and the payment of a heavy fine, he is going about New York, enlisting the sympathy and aid of his friends there to procure him a subscription of ten thousand dollars as an acknowledgment of the 'inestimable boon' which he had conferred upon mankind.

"This unjust claim of Morton and Jackson will now probably be set aside. If the American Medical Gazette be reliably informed, the rights, as well as memory of the late Dr. Horace Wells, have been grossly abused and neglected. The editor of the above named monthly has published in the September number the depositions of Professors Motte and Parker, who are now strangely enough 'bolstering up the pretensions of Morton,' in which, upon oath, they affirm their *knowledge* of the discovery of sulphuric ether as an anæsthetic, by Dr. Wells in 1844, two years before he disclosed the fact to Morton and Jackson, who jointly swore out a patent as discoverers of it. Professors Francis, Mussey and others have endorsed this statement.

"We sincerely trust that a unanimous verdict may sustain the defendant, protect him from a heavy loss, and implicitly condemn and rebuke the prosecutor. Be the result in this particular as it may, Dr. Morton has forfeited the respect and gratitude of all honest men, and consigned his name to a conspicuous place in the roll of imposture, charlatanry and infamy."—*Charleston Med. Jour. and Rev.*

"*Neuralgia.*—Dr. Alexander Wood operated at the Infirmary before the members of the British Association, at the late meeting in Edinburgh, on two patients for neuralgia according to a plan proposed by him. This consists in injecting under the skin, at the most painful part of the nerve, a few drops of Battley's solution. The patients expressed themselves relieved, and Dr. Wood speaks of the process as the most certain and effective means of curing all forms of neuralgia." —*Med. News.*

"*On the Toxical and Medicinal properties of the Nitrate of the Oxide of Glycyl.* (*Nitro-Glycerine or Glonoine.*) By Mr. FIELD."—"This same first dilution of glonoine consists of one drop of a peculiar chemical compound, dissolved in ninety-nine drops of rectified spirit; and glonoine itself I learn to be a nitrate of oxide of glycyl, prepared by adding nitric and sulphuric acids to glycerine, the temperature of the fluids being kept down by a freezing mixture. * *

"Case 2.—Mrs. W—— had suffered severe pain from a decayed tooth for several hours. The pain was so great that she would gladly have had it extracted; but her dentist was anxious to preserve it. In the evening she begged me to give her something, for she said, 'it cannot be made worse.' I placed about half a drop of the solution of glonoine (1 per cent.) on her tongue. Soon after, she experienced a pulsation in the neck, fulness in the head, throbbing in the temples, and slight nausea. The toothache subsided, and she became partially insensible, disliking very much to be roused. When fully sensible, she had headache, but the toothache was gone. Mrs. W—— remarked, 'Certainly that medicine allays pain wonderfully.' She slept unusually well that night, and experienced no ill effects in the morning.

"Case 3.—Elizabeth M——, a stout, healthy young woman, had severe toothache. I was applying a very small piece of lint dipped in glonoine solution (1 per cent.) when it accidentally fell into her mouth and was swallowed. In about five minutes, after feeling giddy and sick with headache, she became insensible. Her countenance, naturally florid, was unaltered, breathing tranquil, pulse full, and rather quickened. Knowing, as I did, that she had taken but a small quantity of the drug, I kept my finger on her pulse, and allowed myself time carefully to observe her condition before applying a restorative. I tested her sensibility to pain, and called loudly to her, but without producing any impression. Directly I detected a slight failure in the pulse; in about three minutes after insensibility commenced, she had some stimulant poured down her throat, when she quickly recovered. Some headache was complained of, but the toothache was cured. The next morning she was quite well. * * *

"I have not yet met with one well-defined case of neuralgic or spasmodic disease in which this medicine has failed to afford relief. *

"I may mention that the pure glonoine which Mr. Wells gave me, as well as that got at Morson's, is an oily-looking, pale yellowish colored liquid, soluble in alcohol and ether; and when first mixed with them yields a perfume similar to that arising from mellow apples. It is insoluble in water, in which it sinks to the bottom like chloroform. It has a sweet burning taste, is very slightly volatile, and inflammable.

"In conclusion, I have only to remark, that I have experimented upon ten different gentlemen, with glonoine obtained from four different sources, and that I have not seen any dangerous effects follow its employment when given in the before-mentioned doses; but if taken pure, great caution should be used."—*Half-Yearly Abstract.*

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"*Hœmostatics.* By H. H. TOLAND, M. D.—Remedies possessing hœmostatic properties have long been a great desideratum in the profession. Richardson, in his recent work on the coagulation of the blood, maintains the doctrine that the actual cautery is the only agent that will infallibly produce that effect. Numerous articles, supposed to possess such properties, have been prepared, eulogized and forgotten.

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"A few months only have elapsed since Monsel, Surgeon of the Military Hospital at Bordeaux, announced the discovery of a new remedy of this character—a per sulphate of iron, or, as he calls it, a new per salt of iron—which bears a strong resemblance to the citrate of iron, and is unquestionably superior even to the actual cautery, because it controls hemorrhage from small vessels as speedily, and does not destroy the most delicate tissues, or interfere with the restorative process. Directions for its preparation can be found in the February number of the *Pacific Medical and Surgical Journal.*

"From its prompt and exceedingly satisfactory effect in the cases given below, I feel perfectly confident in the correctness of his statements in reference to its properties. I have recently used it in three cases in which vessels of considerable magnitude were wounded, and in which great difficulty would have been experienced in applying a ligature. * * * * * * *

"As soon as fluid blood comes in contact with the salt, a firm black coagulum is formed, absolutely insoluble in water, serum or saliva. *

"If applied to a superficial wound as soon as made, not a drop of blood escapes, and no pain results from the application. It acts by producing instantaneous coagulation of the blood, and will be found invaluable in hemorrhage from the mouth, nose and throat, when it is impossible to ligate the vessels, and may be equally efficacious in alarming uterine hemorrhages, either active or passive. In solution it could be readily applied; it is very deliquescent, and dissolves speedily in water. I hope the profession will give it a trial, as I believe it to be the most valuable article of this class that has ever been discovered." —*Pacific Med. and Surg. Jour.*

*Perchloride of Iron.*—"I saw the property that the perchloride of iron has of causing instantaneous coagulation, put to a novel but very useful purpose by Maisonneuve. This surgeon, during the course of the removal of a cancerous tumor in the sub-maxillary region, finding that a continuous oozing from the capillaries and smaller blood vessels, was not only obstructing his view, but also weakening the patient, who was not in a condition to stand the hemorrhage, called for a solution of the article under consideration, with which he sponged the wound, with the effect of instantly controlling the hemorrhage."—*Notes on the Practice in the Hospitals in Paris, By George Suckley, M. D.—Atlanta Med and Surg. Jour.*

"*Human Saliva.*—Stædler, in a recent number of the *Jour. fur Prakt. Phar.*, informs us that human saliva converts starch into sugar by fermentation, at the temperature of 98° Farh. He thinks it not improbable that, under certain conditions, the glucose materials may undergo a similar change, or perhaps decomposition. He has not yet had an opportunity of trying the effects of the pancreotic secretion; but, from Schmidt's experiments, it is found to comport in action like saliva on starch and amygdaline, and it is more than probable that it may affect in a similar manner the salicine. Hence, from what we know of the effects of saliva on this latter substance, we may safely conclude that salicine, when swallowed, undergoes no decomposition in the organs except the stomach and small intestines, but that the saligenine into which it is converted, is taken up and carried through the circulation as such, for in this form it makes its appearance in the urine."—*Pacific Med. and Surg. Jour.*

*Chlorate of Potash in Scurvy.*—"Chlorate of potash has the effect of curing the spongy state of the gums in this disease much more rapidly than any other treatment. It should be combined with lime-juice. This salt appears to be curative in all inflammations of the mouth and gums whatever their cause, syphilitic and cancerous affections alone excepted."—*Braithwaite's Retrospect.*

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"*Chlorate of Potash Lotion in Cancerous Ulcers.*—At the Royal Free Hospital, Mr. Weeden Cooke is in the habit of employing a lotion to heal up various kinds of ulcers, which is worthy of attention. It consists of half an ounce of the chlorate of potash, forty minims of hydrochloric acid, two drachms of the sedative liquor of opium, and a pint of water (twenty ounces.) This has been lately used in a very severe case of ulcerated cancer of the lower lip, left side of the face and left half of the upper lip, in a man aged forty-six, the subject of it these last five years, who had formerly undergone an operation with but temporary benefit, although the disease in him is not hereditary, and who was admitted with this cancer in a horribly foul, swollen condition. When we saw the patent on the last occasion, (June 1st,) we observed that his general health had much improved by a course of internal medicine of bark and hydrochloric acid, and the lotion had converted a malignant sore into a healthy granulating ulcer, of a clean pink color, with a disposition to heal up at the margins. The tendency to bleed, which was always present before, had now completely ceased; and we hope that a large portion of this ulcer may eventually cicatrize under the plan of treatment employed." —*London Lancet.*

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"*On the Comparative Action of Chlorate and Iodate of Potash.*—In a late discussion in a French medical society, M. Demarquay announced that he had made some comparative experiments upon the action of chlorate and iodate of potash, in mercurial salivation and ulcerated stomatitis; and he found that, although the first of these salts exercises a well-known and powerful effect upon the bucco-pharyngeal membrane, yet its operation is inferior to that produced by the iodate —one gramme of the iodate producing more prompt and satisfactory results than four grammes of the chlorate."—*Brit. & For. Med. Chi. Rev.*

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*Cancer of the Mouth.—Silver Sutures.*—A man, 52 years of age, a laborer, and an inveterate smoker, was operated on at the London Hospital, July 27th, for the removal of a cancer—a well-marked case of *buccal epithelioma.* The right side of the mouth and cheek were occupied by it, and it encroached somewhat upon the lips. The patient had ordinarily consumed as much as half an ounce of tobacco daily, and the stem of the pipe had invariably been placed at the seat of the cancer, which first showed itself ten months before, the general health being good. The edges of the wound were brought together with silver wire sutures, union by adhesion ensued, and on the 8th of August the wound was quite healed."—*Bos. Med. & Surg. Jour.*

"*Case of Carcinoma Medullare.*—By J. A. Grant, M. D., etc.—Mr. Appleyard, aged 52, of sallow complexion, tall and well formed, consulted me, May 6th, 1856, concerning a small tumor situated at the base of his tongue and to the left of the frenum. Upon inspection, it appeared intimately connected with the left sublingual gland and as to its structure almost homogeneous with that body, about the size of a small hazle-nut, surface pale, slightly upraised and manifestly papillary or tuberculated, no particular vascularity, moderate flacidity and unattended by pain, except on deep pressure. Sub-maxillary glands indurated, enlarged and painful on pressure. * * *

"March, 1856.—Tumor first observed, but several months previously he experienced sub-maxillary tenderness, supposed to have originated from cold. A strong solution of nitric acid was applied, which, after a few days, removed the most superficial part of tumor. Ordered, ℞.—Potassii Iodidi, gr. xxiv.; Potassæ Bicarbonatis ʒj; Syrupi ℥ss; Aquæ puræ ℥ vss. Misce. Dosis ℥j. bis die.

"June 2d, 1856.—Having returned to town after this short interval—the tumor had gained on its original size. Acid nitric was again applied, but followed, after the lapse of a few weeks, by similar results. The peculiar appearance of tumor, its softness, rapidity of growth, and close connection with surrounding parts, by a broad base, also the enlargement and tenderness of the sub-maxillary glands, led me to offer no favorable prognosis. About July, 1856, Mr. A. entered the Montreal General Hospital, under the charge of Dr. Campbell, who corroborated the diagnosis previously given. The tumor having increased, it was found necessary to remove the two central incisors of lower jaw, into which vacancy it progressed. After a three months tour through various parts of Canada and United States, Mr. A. returned to Ottawa in September, 1856. At this date the inferior maxilla had participated in the malignant action, which assumed a very decided and characteristic aspect. The incisor and canine teeth were perfectly loose, and standing out at different angles, to his great annoyance, being now unable to close his mouth, from which saliva constantly discharged profusely. Severe attacks of hæmorrhage now and then occurred and blood in smaller quantity frequently oozed from the surface of tumor. March, 1857.—Mr. A. visited London, England, and shortly after his arrival expired."—*Med. Chron.*

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"*Epulis Involving the Alveolus.*—From being primarily a very simple affection, as we have already stated on a previous occasion, epulis may so increase and involve subjacent structures as to assume a more serious aspect. A favorite seat of the disease is at the inner surface of the molar teeth of either side of the lower jaw, springing from the periosteum and edge of the alveolus, and occasionally affecting the osseous walls, and forming a distinct tumor, which displaces the teeth and neighboring structures. When this condition has been assumed, we have seen Mr. Fergusson and others remove the portion of jaw thus affected. Occasionally, however, it happens that the careful removal of the tumor itself at its base proves sufficient to effect a radical cure.

"On June 19th, a young married woman was given chloroform in the operating theatre of St. Bartholomew's Hospital, by Dr. Martin, and on her mouth being opened a tumor was seen, springing from the alveolar edge of the inner surface of the left side of the lower jaw, corresponding to the two anterior molar teeth. This was an epulis, which had been slowly increasing in growth for some years. Mr. Stanley cut around its base, after the neighboring teeth had been extracted, and with a pair of curved forceps removed it, taking the precaution to leave none of its base behind. The operation occupied some time, because it was performed without making any incision through the cheek, thus avoiding the deformity of a scar. The growth in this patient, from being at first fibrous, had become almost true bone, though somewhat spongy, and with it was removed as much of the alveolar process as was necessary to render extirpation complete. The patient is doing well, and we have no doubt will make a good recovery.

"Mr. Lloyd, at this hospital, invariably removes an epulis with the forceps, and touches it afterwards with some escharotic. He has lately seen one of his patients who was operated upon in this way fourteen years ago, and in whom there has not been any return of the affection. Mr. Stanley's case forms an interesting addition to the one of Mr. Tatum's at St. George's Hospital, which we gave a few weeks ago."—*Lond. Lancet.*

"*Epulis of the Gums.*—A simple epulis springing from the gum, generally commencing between two of the teeth, may not seem a matter at first sight of any great importance. It can be removed by the knife; the wound will heal up, and the patient supposed safe from any further trouble. Unfortunately, however, this little tumor, which may be fibrous, or fibro-plastic, or perhaps primarily simple celular, does return, and, if not completely eradicated, will actually give rise to so much mischief as to require the actual removal of a portion of the jawbone, whose alveolus has become affected. This we have witnessed several times at different hospitals.

"On the 27th of May, a healthy looking young woman was brought into the operating theatre of St. George's Hospital to have a small and apparently insignificant epulis, scarcely the size of a large pea, removed from between the two upper middle incisors, being attached to the gum in that situation, and extending between them. This was very carefully performed by Mr. Tatum without giving chloroform to the patient, and she was sent back to her ward. This operation, as that gentleman remarked, was the second he had performed within a short time in the same situation in this patient, and he had made up his mind, in addition to the removal, to destroy the surface or base of this little growth with some powerful caustic, which was subsequently done; for however unimportant this malady may appear, it is utterly impossible to say it will not return, and finally affect the alveolus. As a rule, the tumor is indolent and painless in its growth; but its early removal should be invariably attempted, not only as holding out a chance of permanent cure, but to prevent its increase, and sometimes, as we have witnessed, its becoming the seat of offensive ulceration. We shall say nothing on this occasion about the operation for the removal of a portion of the jaw, as the disease in Mr. Tatum's patient had not gone so far as to require such a measure."—*Lond. Lancet.*

"*On Enlarged Tonsils.*—By Mr. Paget, F. R. S.—Speaking of enlarged tonsils and their treatment, in some notes of practice among the out patients of St. Bartholomew's Hospital, Mr. Paget says: 'There is a physiognomy by which the children and young people that have simple enlargement of the tonsils may usually be known at once. Together with a general appearance of feeble health, they have a peculiar shape of the mouth and jaws. The jaws are narrow, so that the teeth are crowded and look disproportionately large. The aperture of the mouth is small, habitually slightly open; the edges of the lips thick, but not pouting, the lower lip rather inverted; the angles of the mouth a little raised; the front of the mouth is almost uniformly convex; the lower lip scarcely recedes towards the chin, but projects with a broad convexity, as if its middle part were slightly pushed forward by the tip of the tongue. The general expression is that of a gradually narrowing and a smooth uniform rounding of the lower part of the face, which make it look small and featureless.

"These peculiarities of shape appear due, partly to defective growth of the jaws and partly to the habit which the patients have in advancing the lower jaw and tongue, in the position in which these parts are yet more evidently held during acute inflammation of the tonsils." * * * * —*Half-Yearly Abstract.*

"*Re-insertion of an Extracted Tooth.*—Dr. E. Cutter read 'the 487th observation or History of Famous Cures,' from the work of Lazarus Riverius, published in 1678, entitled 'A tooth pluckt out and fastened in the gum again.' The reader mentioned a similar experience, where a sound molar, instead of a carious one, was extracted from a woman 32 years old. It was replaced, and a few weeks afterward was found re-established.

"Dr. Ingalls then alluded to a girl of 14 once in his care, who, by a fall, knocked out her upper middle incisors. Maintaining them in their sockets, they also became re-established."—*Bos. Med. & Surg. Jour.*

"*Chaps and Excoriations.*—An excellent application is a mixture of glycerine and tannin, equal parts by weight. The tannin readily dissolves in the glycerine."—*Braith. Ret.*

*Red and dark Blood.*—"One of the most interesting physiological discoveries that has been made for some time, has just been published by Bernard, in a memoir read at the Academy of Sciences at Paris, on the 25th January. The author observes, 'We sometimes find venous blood as red as that in the arteries. I have often noticed this in the renal veins, but it is not confined to them, but can be produced at will in any of the glands simply by exciting their functions.' In an experiment cited by Bernard it is stated, 'the sub-maxillary gland furnished quite dark blood from its viens, but on exciting the gland by a galvanic current, the veins furnished red blood. On arresting the galvanic current the blood again became dark, and was again red on repeating the galvanic stimulus.'

"The observation of this interesting fact is, we think, of great importance, not so much as an isolated fact, but as tending to lead to researches on the action of the nervous system in secretion. The chemists, we believe, have had it rather too much their own way in the investigation of physiological phenomena during the last twenty years. The observation above cited proves that a gland is something more than a simple alembic or combustion tube into which so much albumen, fibrine, &c., enter, and which turn out so much urea, carbonic acid, and water, through the play of ordinary chemical affinities. The experiment of Bernard plainly points out that a dynamic element conveyed by the nerves, exerts at least a powerful influence in modifying the reactions."—*Dr. Blake.—Pac. Med. and Surg. Jour.*

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*Conditions of Blood in Healthy and Irritated Parts.*—"The remarkable fact discovered by Dr. H. Weber, of Giessen, but observed independently by the author, that accumulation of corpuscles occurs in the vessels of a part irritated, after circulation has been arrested by a tight ligature round the thigh, furnished the opportunity for careful comparison between the conditions of blood in healthy and irritated parts, uncomplicated by the effects of rapid movement. A series of experiments, conducted in this way, confirmed the conclusion previously arrived at, that the accumulation of the blood-corpuscles was simply the result of their abnormal adhesiveness. At the same time, these experiments brought out the remarkable fact that mere quiescence of the blood does not give rise to aggregation of the red corpuscles within the vessels, unless the tissues are in an unhealthy condition, in consequence of irritation. It further appeared that the corpuscles never exhibit greater adhesiveness within the vessels of an inflamed part than do those of blood, from a healthy part, when drawn from the body. Also, the well known adhesiveness of the white corpuscles within the vessels does not occur, according to the author, unless some degree of irritation is present, and never exceeds that which is always seen in blood outside the body. Hence the inference is drawn that the tissues of a healthy part exert an influence on the blood in their vicinity, by means of which the corpuscles, both red and white, are preserved free from adhesiveness, but that, in an inflamed part, this influence is more or less in abeyance.

"This view has been confirmed by observations made on the wing of the bat."—*Half-Yearly Abstract.*

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*Adams on Rheumatic Arthritis.*—"The changes undergone in the osseous system affected by this malady, are almost entirely confined to the articular extremities of bones, and are remarkable in the substitution of the ivory-like enamel over their surfaces for that of healthy natural articular cartilage. But there is one peculiar difference between some of the conditions affecting the articular extremities of bones—*i. e.*, between those bones which form ginglymoid joints, and those of the enarthrodial variety. In the latter, the socket becomes deepened by osseous and fibroid deposit round its margin, and the head of the round bone becomes expanded and enlarged in an equal proportion; whereas, in the hinge joints, the trochlæ by their constant friction in time wear away the corresponding surface of the opposed bones, and thus form grooves for their reception. The lower extremity of the femur will often be found worn into ridges, and the articular surfaces of other bones similarly irregular. The shafts of bones are sometimes affected in this disease, though much less frequently in proportion to their epiphysal extremities. When this is the case, they will be found enlarged in different parts, and their structure rendered dense and heavy. Dr. Adams mentions an interesting case, in which the ramus of the lower jaw-bone was found to be an inch longer on one side than on the other, the corresponding condyle being three times the size of its fellow." * * *Brit. and For. Med. Chi. Rev.*

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"*On the relative position of the Nerves and Vessels of the Limbs.* By BURTON BROWN, M. D.—It has long been known that in the intercostal spaces the nerve lies on the more exposed part of the space, while the vessels are well protected by the lower border of the rib; and this has been accounted for on the ground that injury to the artery would be more detrimental to the health of the individual than injury to the nerve. This remark has never been employed to explain the relative position of the large nerves and vessels of the limbs, although it is the rule here as elsewhere that 'the nerve lies on the more exposed side.' And this remark may materially assist the memory of practitioners who enjoy few opportunities of refreshing their anatomical knowledge, on a subject rather difficult to remember, for at first sight it would appear that the nerve was situated sometimes to the outer side of the vessels, sometimes to the inner, without any definite arrangement. But if we consider the lower extremities, it will be seen that (with one exception, the anterior tibial on the foot) a large nerve lies always to the outer side of the vessel—*e. g.* the anterior crural nerve and femoral vessels, the popliteal nerve and vessels, &c.; and this is because the two legs can never be separated far, so that the inner side of each is protected by the other, and the outer is more exposed. On the foot, however, which is habitually turned outwards and separated from its fellow, the nerve is placed to the inner side of the vessels, this side being directed forwards and most exposed to injury.

"The upper extremities are so situated that they can only be placed side by side from the elbow downwards, and then in a constrained position, so that in this part of the body, the vessels do not run nearest the median line of the body, but next that of the limb, and the nerve lies on the outer side of the vessels, when the latter are on the outside of the arm, as in the case of the radial nerve and vessels, and to the inner side when the vessels course along the inner side of the limb, as in the case of the brachial and ulnar arteries."—*London Lancet.*

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"*Staphyloraphy.*—A lad of sixteen years of age, with the simple form of fissure of the soft palate, but slightly affecting the posterior margin of the hard palate, was submitted to the usual form of operation of staphyloraphy adopted by Mr. Fergusson at King's College Hospital, on the 26th of June. This proceeding was perfectly successful, although all the circumstances of the case were by no means so favorable: thus the boy was of small stature; he had a small mouth, which was besides long and narrow; the soft part of the palate was difficult to get at, and he moved his tongue a good deal during the operation, a proceeding which renders it sometimes of great difficulty. He had also a wry neck, thus preventing the holding of his head in such a way as to facilitate the steps of the operation. There was much less bleeding in this case than is usually seen, because the knife was used but to a limited extent.

"On the same occasion, a young man was operated upon for harelip, for the second time, the first having been performed ineffectually when he was two years old; it occupied the left side of the mesial line, as is noticed in ninety-nine cases out of a hundred. This patient had also a fissure through both the hard and soft palates, which had been remedied by staphyloraphy by Mr. Fergusson, with success, a fortnight before. Union was perfect, but the parts were still a little tender.

"We believe that this formed about the sixtieth case or upwards of this operation performed by Mr. Fergusson, and all of them with success, except two, the failure of which depended upon too many stitches and their being drawn, probably, too tight, which permitted of sloughing."—*London Lancet.*

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"*Effects of Phosphorus on Matchmakers.*—From an address delivered on the 18th, by Dr. J. R. Wood, we learn some interesting facts regarding the effects of the process of phosphorus on those who are employed in matchmaking. It is not an uncommon thing for matchmakers to lose the lower, and sometimes also the upper jaw. It appears, however, that only those suffer who have decayed teeth. So important is this latter fact, that the government of Erfurt has passed a decree, saying that no person having decayed teeth shall be allowed to work in lucifer match factories, and in a match factory in this city no workman is allowed to return to his work for a week after the extraction of a tooth. It had been thought that the fumes were unhealthy also to the general system, but it appears that the operators are as healthy as those of Lowell or Lawrence, the disease attacking only denuded bones. It more often affects the maxillary than other bones, and the inferior sooner than the superior. The pain in the jaw, which ushers in the disease, is generally mistaken for toothache. The disease in the first stage is chronic, and may be indefinitely prolonged with little inconvenience to the patient.

"The second stage begins with an attack of acute inflammation in the diseased part, excited by cold or otherwise; there is great pain and swelling of the soft parts; the new formation is destroyed and discharged, with an abundance of offensive pus; and the old bone remains a sequestrum in the midst of the products of suppuration, to be subsequently discharged in successive portions. This stage is attended with great suffering and constitutional disturbance; and not unfrequently patients die from exhaustion during this process of suppuration, or from gangrene of the soft parts. If the disease pass on unarrested, the jaw becomes more and more involved, large portions exfoliate, and the whole finally becomes implicated. Few survive to this period, and a still less number witness the completion of the morbid process in the discharge of the entire jaw."—*N. Y. Post.*

PATENTS.—"*Method of Extracting Teeth.*—Jerome B. Francis, assignor to Wm. Harper, Jr., assignor to Jerome B. Francis, assignor to James J. Clark, Philadelphia, Pennsylvania.

"*Claim.*—The combination of the electro-magnetic machine, or its equivalent, with the dental forceps, for removing teeth without pain." *Journal Franklin Institute.*

"*Use of Dentists' Pattern Plates.*—William M. Wright, Pittsburg, Pennsylvania.

"*Claim.*—The use of metallic pattern plates, or their equivalents, made as described."—*Journal Franklin Institute.*

*The Medical and Surgical Reporter.*—This valuable journal has been converted into a weekly, and will henceforth be able to present a more frequent resume of the medical knowledge of the day. Terms, $3 per annum, or $1 for four months, *in advance.* Every dentist should take a medical journal, in order to keep himself posted on the general progress of medical science, and enable him better to understand and fulfill the duties of his own specialty; and as this journal is one of the most enterprising in the profession, besides having all the advantages of publication in the medical centre of this country, it will afford great facilities for medical instruction. If any of our friends will send us the requisite funds, we shall be pleased to subscribe for them.

## SUMMARY.

Fordyce Barker, of New York, highly recommends the compound tincture of benzoin as a certain and speedy hœmastatic.

Painting plaster of Paris with white of egg is said to prevent it from cracking or crumbling.

A woman at Rovigo was lately delivered of five daughters at a birth, after a pregnancy of seven months; three of them are said to have had a full compliment of front and back teeth.

*Animal charcoal* is a certain antidote for henbane, belladona or stramonium; it must be taken before the poison has passes from the stomach.

"Surely there is no human failing more common or ridiculous than blind self-complacency."

# THE DENTAL NEWS LETTER.

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For the Dental News Letter.

## INTRODUCTORY LECTURE TO THE CLASS OF THE PENNSYLVANIA COLLEGE OF DENTAL SURGERY.—SESSION 1858–59.

BY J. L. SUESSEROTT, D. D. S.

Professor of Principles of Dental Surgery.

Gentlemen :—I bid you welcome to this hall of learning ; and whilst offering you not only words of welcome, but the hand of assistance, to the fullest extent of my ability, I do not think these prefatory remarks can be better directed than in pointing out to you some of the dangers by which you will be beset, and also the *mental* and *moral* culture to which each of you should from this day diligently subject himself.

The task will be delightful and easy to some ; to others, a warfare made trebly terrible by the appearance of such foes as indolence, pride and sensuality. But let those who may unfortunately belong to the latter class, "strengthen their hearts" with the assurance that all these natural enemies may, by indomitable perseverance and courage, be overcome.

Whatever may be the difficulties by which in the country a student is surrounded, they are of no less magnitude when he arrives in a great city to complete his course of professional study. Some, perhaps, have left home for the first time, and although they may have the prayers of a pious father, mother, brother, or sister, offered nightly in their behalf, yet are they exposed to allurements and temptations on every side, which nothing but a heaven-inspired moral courage will enable them to overcome.

Amidst an almost boundless population, to which the student is comparatively a stranger, he has to find his path with but little experience in the ways of the world, and without that distrust which is the safeguard of those who have long held intercourse with mixed society on a large scale. In the country, where the position of every one is known, dress and manners are seldom assumed to carry on fraud and intrigue. A young and verdant student, therefore, is very apt to be led away by a pleasing exterior, or a winning address; and, with a Samaritanic charity, to take as true the well-told tale of sorrow or wrong. By studiously shunning the acquaintance of unknown persons who are lavish of professions of regard, and who flatter but to injure, is the only way to avoid this danger. Love or friendship at first sight is a rare event, even for the fair sex, and we should never allow our own self regard to betray us into the belief that our extraordinary merit has attracted and purchased a violent and sudden respect.

Persons who thus approach you, do it to deceive, and my advice is that of him who is reputed to have been the wisest of his day and generation—which, as far as science is concerned, was by no means the darkest in the world's history—"Walk not thou in the way with them; refrain thy foot from their path." Shun, as you would eternal death, all those dens of infamy, sensuality and dissipation, with which all large cities are infested. At first you may enter them with throbbing pulse; with, perhaps, the admonition of a fond mother sounding in your ear, but before you have trifled long with the tempter, your ears will be closed to the voice of warning; your tremulous heart, rendered callous by the poison infused into it, will permit you to go on the downward way to death before a friendly hand can be extended to the rescue.

It is not my province to fill your minds with vague fears or general distrust; but I would have you study the character of your admirers before you unbosom yourselves to them, or give yourselves up to their guidance. For the benefit of those who happily are exempted by cautiousness of character, or knowledge of the world, or impregnable virtue, from the dangers to which I have alluded, I will point to other evils to which they are still liable. Among these, one of the most common is a careless method of study at the outset of their course. It is an incontrovertible fact that all minds are not equally endowed, that the love of study cannot be readily acquired by every one, that a desire to see the world and its amusements, or perhaps the more innocent, and, to some extent, more profitable employment of visiting agreeable and virtuous female friends, may lead many to throw aside their books, after having given a trivial glance at facts and ideas which ought to be the capital upon which a useful and profitable fund of information is to be based; promising, at the same time, that when a more convenient season is at hand, a greater draught will be made upon the researches of older heads. It is no less true that "it is not so much the intellect that makes the man, as the man the intellect; in every act of earnest thinking, the reach of the thought depends on the pressure of the will; and we would, therefore, emphasize and enforce, as the primitive requirement of intellectual success, that discipline of the individual which developes dim tendencies into positive sentiments, sentiments into ideas, and ideas into abilities." In order to accomplish this, indefatigable, earnest application is requisite, discarding that vain delusive tempter, procrastination, which induces us to defer to some future season, an active and productive course of study.

"Every step, indeed, of the student's progress calls for energy and effort, and every step is beset by some soft temptation to abandon the task of developing power, for the delight of following impulse. The appetites, for example, instead of being bitted, and bridled, and trained into passions, and sent through the intellect to quicken, sharpen, and intensify its activity, are allowed to take their way unmolested to their own objects of sense, and drag the mind down to their own sensual level." While I urge you to earnest efforts of mental culture, I would not discountenance proper and innocent recreation. In order to derive profit from a habit of study, it ought to be regular, and the time allotted to study ought not to be so long that the physical constitution will be made to suffer while we are filling the storehouse of knowledge. In the words of Bishop Hall, permit me to say, "Recreation is adapted to the mind, as whetting is to the scythe; to sharpen the edge of it, which otherwise would grow dull and blunt. He, therefore, that spends his whole time in recreation, is ever whetting, never mowing; his grass may grow and his steed starve. As, contrarily, he that always toils and never recreates, is ever mowing, never whetting; laboring much to little purpose; as good no scythe as no edge. Then only doth the work go forward when the scythe is so seasonably and moderately whetted that it may cut, and so cuts that it may have the help of sharpening. I would so interchange, that I neither be dull with work, nor idle and wanton with recreation."

With the same earnestness that I tell you to *study*, let me also tell you to *think;* observe for yourselves, do not trust to what you hear in lectures, or read in books, but make the knowledge your own, by your own labor. Lectures and books will do to guide you, but the goal can be only reached by traveling the road yourselves. Next to idleness shun conceit; intellectual indolence is sure to generate intellectual conceit. How much better is it to delve for a little solid knowledge, and be sure of that, than to be the butt and proper object of contempt of men of sound cultivated intelligence; there is nothing that tends more strongly to retard the progress and to injure the usefulness of any one, than the fact that he is on too good terms with himself. No matter what his primitive intelligence may be, all his natural powers, and all his acquired lore will dwindle into insignificance.

A proper self-respect is commendable and greatly to be desired; the very nature of your avocation, and the desire to please all, will tend to diminish your self respect. And while I urge you to suppress any feelings of self adoration, let me with equal earnestness enjoin upon you a reverence for your profession. The educated dentist should ever regard himself as the superior, in his proper sphere, to every other person, of whatever rank or condition.

He must combine suavity of manners with his independence, but he must not yield a rational opinion without reasons perfectly satisfactory to his judgment for so doing. There is scarcely a quality which so much dignifies human nature as consistency of conduct, and no weakness more deplorable than that of *instability*. Having made use of the powers with which the God of nature has endowed you, and having dipt deep into the Pierian spring, the valuable legacy will be yours to know that you are no man's man; that you have carefully digested facts presented by those who have preceded you, and that ere long the art of your choice will be improved by your contributions, and by your own elucidations of difficulties to which the earlier ages afforded no key.

Do not be satisfied with mediocrity in any department of your profession, determine from this day that the whole of it or none shall be yours. Then will you have a right to claim the position and the respect due to one who expects to be not only an ornament to society, but a benefit to his fellow creatures.

You are about to enter a profession fraught with anxieties and disappointments; but, at the same time, one over which no other specialty of the remedial science can claim to be doing, or to have done, more to relieve the anguish and ameliorate the condition of the human family; therefore, in entering it, expect reverses and difficulties, but know that all of these, like those natural evils to which we have already referred, can be overcome by a determined energy and an unwearying zeal to accomplish all that nature and art combined will allow you to perform.

As I may have led some, for the first time, to know that their path will not be a smooth one, allow me to cheer you with the fact that dentistry, unlike the other learned professions, is not already crowded; the field is large, and, unfortunately for the human family, "the harvest is ripe and the laborers few." I do not mean that the pretenders are few, for alas, that mean, contemptible production of avarice, the quack, has entered our profession also; but while we can promise you that as science advances, he, like Noah's dove, will have no rest for the sole of his foot; we can also give you the sad intelligence, that the mischief he has done will afford you employment, and will require years of activity to remedy. I can say with truth, that no other art or profession has ever made as rapid advances as dentistry, and with the proper establishment of such schools as this; with a proper support of our dental periodicals, through which we can have an intimate interchange of sentiments, it is for us to hope that the day is not far distant when charlatanism, as far as relates to our profession, will be numbered with the things that were. Do not put bread into the mouths of those whose end is so fast approaching, by an open and violent opposition to them, whereby you excite the sympathy of the world in their behalf; but by an honest, upright, onward course on your part, cause the distinction between the true votary of science and the vile pretender to be so evident, that the wayfaring man, though a fool, may be able to discern. That the world will need your services must be apparent to all, for in nothing relating to life and connected with man's happiness, is there so fearful a degeneracy as in the human teeth; the causes are various and will be discoursed upon at the proper time, the fact is all to which we wish to direct your attention at this time; and while we urge you to equip yourselves for the task of arresting that degeneracy, let me also beg of you to entertain no feelings of gratulation that the misfortunes of others will fill your coffers. It is the duty of all true philanthropists to use every effort to benefit their race, and if he who makes two blades of grass grow where but one formerly grew, is counted a benefactor, certainly they who elevate the physical condition of man might be counted more worthy of honor.

While you are honest in your efforts to benefit your patients, it is equally your duty to be honest to yourselves; uphold the dignity of your science, and in your struggle for bread, do not consider it a mere trade, nor in your desire to compete in price with those who have made no investment of brains or capital, reduce your compensation to that of the day laborer. But, stop! I am digressing in assuming that you are all ready to enter the lists of life. Upon reflection, I find that it is my lot to help to smooth the rugged path over which you must tread before you reach the climacteric of your hopes; and in order to come to a proper understanding, I will offer you my best efforts as a teacher, and in return I ask your studious, earnest attention; many things may be presented to your minds that you will not be able immediately to comprehend, but remember the old maxim that "perseverance conquers all things," and do not consider anything impossible for you to do that man has already done; nor be content with merely following over the beaten track so often traversed by others, but while you are engaged in listening, be also engaged in thinking; be the originators of new ideas, and prove by your contributions to science, when you leave this hall, that you are worthy sons of an efficient *alma mater.*

In considering your own honor and the honor of your profession, endeavor to reflect credit on your teachers.

The department of science, in the study of which it will be my duty to guide you, may oft times fill you with dissatisfaction, and may induce some of you to ask, as others have done, wherefore the necessity of a knowledge of pathology and therapeutics, or some may even doubt the expediency of employing time in the study of anatomy and physiology, or of chemistry, which time, they will argue, might have been employed in the prosecution of a knowledge of those branches, which, to them, have a more direct bearing on the filling and extraction of teeth, the correction of irregularities, and the insertion of artificial dentures.

But, gentlemen, there is not one of you who would not doubt the ability of a mariner who is ignorant of the shoals and quicksands over which he is attempting to glide, and into which he is rushing, no matter how great his knowledge of the use of every spar and rope, or of his incomparable skill in adjusting his canvas. He would be a foolish man indeed to attempt the guidance of the affairs of state who is ignorant of the existence of vice and immorality, and who is incapable of adjudicating the proper laws for its suppression and prevention. In the same manner, gentlemen, unless you fully equip yourselves, you will find that you will be tempest tossed, without a landmark, and in the same way will you produce evils in your attempt to prevent them; happy, indeed, will it be for you that the old Levitical law has been long since abolished, "an eye for an eye, and a tooth for a tooth." The only true way to remedy an evil is to get at the root of it; the old Latin maxim, "tolle causan cessat effectus," applies to your profession as well as to that of medicine. Remove the cause and the effect ceases; but how will you remove an evil if you are ignorant whence it springs, or how will you apply a remedy if you are ignorant of the action of that remedy on each particular tissue and organism with which it may come in contact. No, gentlemen, as I have already urged you, qualify yourselves for the full performance of the duties that will devolve upon you, and hasten the time when dental surgery will shine forth and be emblazoned high in the galaxy of art as a finished science.

Upon you depends the advancement of your profession, and to you may yet be accorded the praises of unborn millions, for to some one of your number may they be indebted for as great a boon as that conferred by the immortal Jenner.

I cannot point out to you the particular sphere in which you may become illustrious, nor in what particular manner you may benefit your race; but I can say, that it is possible for each of you to make a valuable contribution to science; and with that object in view, you should ever keep for your watchword, "Excelsior, excelsior!"

Our lectures will comprise a consideration of pathology, without entering into a minute description of morbid changes in the general system, but will have a more direct bearing on those structures with which the practitioner of dentistry will have to treat. A knowledge of the changes that take place in the structure, consistence, and position of the fluids, as well as the solids, will be of great interest, because, in treating diseases of the mouth, we come in contact with both. But it is not at all necessary that we should enter into a consideration of the changes that will take place throughout the entire organism, for from the knowledge of anatomy which you may now possess, together with the thorough instruction in that branch and in that of physiology, which you will receive from my able friend and colleague in that department, will enable you to understand that a morbid change of any tissue or fluid, in any part of the system, is capable of producing a change in other and not necessarily contiguous parts. That you may be able to correct such changes, and to remove such diseases, for, to a certain extent, any departure from a normal condition is a disease, it will be my province to instruct you, and happy indeed will I be, if, through my instructions, the productive genius of any one of you should be developed, and but one of the vexed questions with which we so often meet, should be satisfactorily explained. In the course of your studies you will meet with many dogmas by no means perfectly established, many fine theories, having about as much substance as the air we breathe. Receive and carefully digest every thing that is advanced for your instruction, and in doing so, try to emulate our much lamented friend, the late Professor Townsend, of whom it is said that he received with respect and deference every opinion and suggestion, no matter how humble the source, and by careful research on your part, cause that which was mere hypothesis to be satisfactorily and substantially established.

That you may be the better able to follow up our lectures, we will arrange them in four divisions, as follows:

1st. Elements of general pathology and therapeutical indications.

2d. Dental pathology.

3d. Pathological relations of the teeth to other parts of the system.

4th. Description of such special diseases as have any relation to dental surgery.

In the first division will be considered those general aspects of disease with which it is necessary to be acquainted in order to be able to understand the nature of any departure from health. Disease and methods of investigating it; causes of disease, symptoms, diagnosis, prognosis, general application of remedies; irritability, irritation, disordered conditions of the blood and the circulation; inflammation and its terminations; effusion, suppuration and its consequences; ulceration, gangrene, sloughing, morbid growths, &c.

In the second division will be discussed the special diseases of the teeth and their appendages. Dental caries, theories which have been offered in explanation of this particular disease; the effects of old and erroneous notions concerning this disease upon some of the opinions held at the present day; what is believed to be the true theory of dental caries; its various phases, progress and treatment; disorders of the dental pulp, the true light in which they are to be considered, discussion of the various methods proposed for their treatment; a full and careful account of the most reliable methods for extirpating the pulp, consequences of improper treatment, and common causes of failure; diseased conditions of the membranes of the alveoli; alveolar abscess, the various forms it assumes, the various causes upon which it depends, rational methods of curing this disorder; exostosis of the fangs and alveoli; necrosis and exfoliation, explanation of the method of treating; diseases of the gums; diseases of the antrum.

In the third division will be examined the effects of diseased teeth upon the general health. In this connection will be considered the relations of the nervous system to the teeth, neuralgia, constitutional irritation, &c.

The closing division will present as minute a description as possible of such special diseases as may in any degree be interesting to the dentist; as cancer, scurvy, scrofula, erysipelas, diseases of the bones, &c. Also, a description of the minor surgical operations, such as ligation of arteries, arteriotomy, phlebotomy, various modes of adjusting bandages; for cases will frequently occur when you may be compelled to overstep the bounds of the mere dentist, and then, and not till then, will you fully appreciate your knowledge of the principles of dental surgery and therapeutics.

For the Dental News Letter.

## EXTRACTING WISDOM TEETH.

Messrs. Editors:—I noticed a long piece in your last *Dental News Letter* of October No., upon lateral pressure of the teeth. I have had quite a number of such cases, and I have found it very difficult to extract the wisdom teeth when the jaws were much swollen. The difficulty is to get the mouth open far enough to get the forceps back to the teeth. I have met with a number who have had sound teeth extracted so as to make room to get at the wisdom tooth or back teeth. I have one case which came into my hands a few days ago, which I will give to you, and my method of extracting the tooth.

Mr. F. applied to me for advice in regard to the cause of pain in his face, and a discharge on the outside of the left inferior maxillary. Upon inquiry, I found that it had been discharging, at times, for six months. He said his physician had been giving him medicine, but it did him no good, and he was worse now than when he commenced taking medicine. I examined his mouth and found his teeth perfectly sound, but the left inferior wisdom tooth was making its way through the gum; but the jaw being already crowded, there was not room for it. I saw at once that the cause of the discharge was from this tooth, and I advised him to have it extracted immediately. I found his face much swollen, and the muscles very rigid, and it was impossible to get his mouth open but little. I made a wedge and tried to force his mouth open so that I could introduce the forceps, but I found that it was an impossibility. What was to be done then? Take out a sound tooth to make room for the forceps, or resort to some other instrument? There was not more than a fourth of an inch between the second molars of the upper and under jaw. I succeeded with the key with but little difficulty. The hook being quite narrow, I slipped it along on the cutting edge of the teeth, and let it drop on the wisdom tooth, and with another small instrument forced the hook down on to the tooth and took it out at once.

If any one knows of any better way of extracting teeth of this character, where it is impossible to get the forceps to them, I should be happy to hear from him. E. G. Cummings, D. D. S.

Concord, N. H.

For the Dental News Letter.

# PRACTICAL HINTS.

BY J. D. WHITE.

The past fall and winter has been one of unusual interest to the dentist, at least in our city. We noted that on the 25th of September the wind changed from south-west to north-east, Saturday; and on Monday, the 27th, there was a great number of cases of toothache came in, and since which time, the weather has been unprecedented for its mildness and sudden changes and wet. Each change brought its batch of cases of toothache. I always believed that it was important to observe the weather in treating nerve cases, but never before so much as the past four months. The nerves would not die right; and when they were dead, the teeth would not recover as well from the shock as usual. There was a great tendency to periosteal irritation and spongyness of the gums. I have been caught many times after plugging such teeth, when I thought they were right, in being obliged to remove the plugs and do my work over, and waiting for time to settle the matter for me. There was a general relaxation of the vascular system, and the generality of diseases have taken on typhoid symptoms. Has this anything to do with dentistry? I believe that it has. A tooth ought not to be plugged until it is ready, and the patient in a reasonable state of health. Some persons of iron constitution, and good bland nervous temperament, are always in a condition to have a tooth plugged.

First, I will try to answer when a tooth is ready to be plugged. If the pulp be exposed, it ought to be removed from the tooth. This can be accomplished by opening the orifice of exposure sufficiently large to pass into the nerve cavity and canal of the root a fine probe, so barbed as to grapple the nerve, so that it can be drawn out. Some prefer to do this without first destroying the vitality of this substance. I have given my views long since on this subject. I apply arsenious paste to the exposed pulp, letting it remain over night, when I examine the case, and remove as much of the pulp as possible. Sometimes I apply the paste a second time, but not until the bleeding has subsided. Under some circumstances, I do not apply the paste a second time for several days. I never apply it two days in succession, if the first application has not sufficiently destroyed the sensibility to allow of removing a portion of it. I know that dentists are not unfrequently perplexed by not waiting until the irritation established by the first application has subsided. In such cases, if the pulp can be punctured the least, so as to excite bleeding, it will prevent pain. For the last four months I have had more cases of this kind, than during the same length of time in my former practice. When I have succeeded in removing the whole of the pulp by various means, (which I do not intend in this article to give in detail,) I wait a few days until I am satisfied that the tooth can do without its pulp, and there is no discharge from the root, no periostitis, no discoloration or looseness of the tooth. I then proceed to plug the root, and sometimes the external cavity. But if it be large, requiring a great deal of labor, I make that a second operation. Each one's own judgment, after a little practice, will enable him to decide this for himself. If the tooth should become painful after this, I direct the application of cold water, or ice rolled in a cloth applied to the part. But if the pain continues, and the tooth becomes sore to the touch, I remove the plug, which generally relieves the case. If it does not, I cannot save the tooth. I have been obliged to extract two of this kind within the past four months.

It is well known that, when a patient is suffering from pain by an exposed pulp, if the pulp be destroyed, the pain ceases. This goes to show that the exposed pulp is the great cause of toothache; at least, the great *first* cause, periostitis the *second*, and depends upon the temperament of the patient, and circumstances, such as occupation, habits of life, and locality. An irrito-nervous temperament cannot well bear the destruction of a pulp. I have many patients whose teeth I cannot save when the pulps are exposed, and not unfrequently they suffer pain before the nerves are exposed, merely by the acid fluids of the mouth coming in contact with the sensitive dentine. And again, persons whose occupation exposes them to all kinds of weather, are constantly suffering from swollen face and gums. I am frequently governed in attempting to destroy nerves of patients by this. I would fail to save a tooth for an exposed servant woman, while I would succeed in saving one for her more protected and prudent mistress of similar temperament. I can also save a tooth for a patient whose habits are moderate, while I would fail with a fast young man who kept late hours, and indulged freely in hot whiskey punches. I should also judge that locality or climate has a great deal to do with the treatment of nerve cases. I have seen, during the last summer and fall, a great many cases of toothache—five in one day after a north-easterly storm in September—from the South; cases which had been treated by dentists eminent in the profession. And surely if the same ill success attended their cases at home, they would not persist in the practice. This doubtless accounts, in a great measure, for the difference of opinion among practitioners of equal merit and honesty of purpose, but of different localities. Hence, how cautious we ought to be in the expression of opinion of condemnation when unfavorable results attend the case of a migrating patient. Can we not have some light on this subject from our brethren of the sunny South?

We will cite one case of a number of the same kind. A young lady of about thirty, of delicate habits, had a tooth treated in New Orleans, in May last. The pulp had some soothing application applied to it for three or four weeks. When it was plugged it was perfectly comfortable. She came North, and it remained comfortable until September, when she was attacked with pain in the same side of the face and head that the tooth was plugged; but the tooth was not suspected as in any way connected with it. She applied to a physician. He prescribed the usual treatment for neuralgia. The pain was intermittent, and constantly changing its locality, but never in the tooth that had been last plugged. She finally called to consult me. I could discover nothing about the tooth to indicate disease; but on learning that a certain tooth had been plugged, as above stated, I removed the plug, and found that it had been plugged over the nerve. The nerve was partially dead. I destroyed the remainder; removed it, and in time plugged the tooth, and there has been no further pain up to this time.

The intermittent character of the pain in this case seemed to show that the pulp had recovered from the sedative effects of the treatment, and was in a similar condition to many cases that came to me before the patient has had anything done to their teeth, but which the decay partially protected. If the tooth was painful by slight irritation before I saw it, how could it be in a proper condition for plugging, after I allayed the irritation and left the pulp still alive to recover from the effects of the treatment, and be liable to take on the same irritation as before? As long as the pulp is alive, it is capable of recovering from the effects of a narcotic or astringent; and as pulp, when exposed, presents a large surface of sensitive and highly vascular membrane to the contact of irritating substances, it reflects a powerful influence over the whole of the fifth pair, of which it is a branch. Hence, we believe it ought always, when exposed, to be destroyed, to cut off this impression. This is an important point in our subject, and we will leave it for the consideration of the profession.

For the Dental News Letter.

## CASE OF NECROSIS OF THE LOWER JAW.

Messrs. Editors:—In April, 1855, George Britney, a lad, aged nine, was brought to me for advice by his parents. He had been suffering during the last six months, with pain and swelling in the right side of the lower jaw, attended with a discharge within the mouth, of an extremely offensive purulent matter. The first attack of pain was after exposure to cold and wet, by lying on the ground in the fields and going to sleep. A physician was called at the time to extract a tooth, but the jaw continued to swell, and to be painful for many weeks.

On his first visit to me, the jaw was much enlarged back as far as the condyle, and at the angle the deformity was very great. I found the bone protruding through the gum, near the locality of the first permanent molar tooth, which had been extracted, and on examining the parts with a probe, found it to be a portion of a large mass of dead bone, extending from the right lateral incisor to the condyloid process. The fœtor of the purulent discharge was most intolerable, and as the exfoliation of the bones seemed to be quite complete anteriorly, I ventured to remove that portion of the mass at once, which was readily done, by dividing the gum, from the opening to the first incisor, and grasping it with a pair of forceps, and breaking it from the more deeply seated posterior portion. This dead and friable bone contained the permanent teeth, still unerupted, and some of the temporary hanging to the alveolar process. The hemorrhage being a good deal, I thought best to postpone removing the angle of the jaw till more perfectly separated from the soft parts.

The boy was brought in again in about ten days, to have the operation completed, as the protruding bone was causing much irritation. I took hold of the free end of the bone with forceps, and by a good deal of manœuvring, succeeded in *unhooking* it from the great mass of soft parts. This last portion included the angle and ramus as far up as the division into the corynoid and condyloid processes; also about one inch of the base of the jaw, with two teeth still within the bony case. The new ossific formation was already strong enough to keep the parts in place; and the hemorrhage being soon arrested, the patient was more comfortable than for many months. By the use of a weak solution of chloride of soda, the fœtor was arrested, and in a few days the soft parts entirely healed. I had opportunities occasionally to examine the case during the following six months, and no more fragments of bone appearing, dismissed it altogether. Again, in February, 1858, I saw the case, and found the new bone very firm. It had contracted a good deal, and occupied nearly the locality of the original, the external deformity having been almost entirely obviated. Within the mouth there was more deformity, the superior maxillary having become a good deal depressed below the natural level, in consequence of the loss of support from the lower. Altogether, the case terminated better than would have been predicted by the unprofessional, and, in fact, by the most sanguine inquirer into the great restorative powers of nature.

It may not be out of place here to state that the *lower jaw* and *scapula* are the only bones, excepting the cylindrical, that have been noticed to have been *reproduced.* I might also add that the condyle in this case remained healthy in the glenoid cavity—giving attachment to the new bone, and thus preserving the joint and the motions of the jaw. The coronoid process also remained in place, preserving the attachment of the temporal muscle.

The heads and articulating extremities of cylindrical bones in *most* instances, remain healthy, when their bodies are destroyed by necrosis. In some *rare* instances, however, the extremities become involved, destroying the joint, and attended with much danger to the limb, insuring the necessity of amputation. C. K. FISKE.

St. John, New Brunswick, January, 1859.

For the Dental News Letter.

## ATMOSPHERIC PRESSURE PLATES.

TO THE EDITORS OF THE DENTAL NEWS LETTER.—*Gentlemen:*—In consequence of reading an article in the above Journal, Vol. XI., No. 3, on a good method of obtaining a complete fit of atmospheric pressure plates, I have resolved to request you to publish a description of the manner in which I have made these plates for the last eight years, if you think it worthy of a place in your valuable periodical.

All depends upon a perfect impression of the gums, and for this purpose I have never found anything better than good, pure yellow beeswax, which I have ready prepared in thin sheets; warm it by the heat from a spirit lamp, working it well with the fingers until it is uniformly smooth and soft throughout. On the wax impression I cut out with an ordinary pocket-knife, the space for the air-chamber, taking great care to preserve the edge around it perfect, giving it the depth necessary, but smoothing it off afterwards on the plaster cast. When the wax impression comes from the mouth, it should be large enough to admit of the plaster cast being cut in a round shape ; if not, make it so by adding more wax on the outsides without altering its shape; then fill up with plaster of Paris, an inch high is enough; when set, separate it from the wax and trim the mould so that it can afterwards easily be released from the metal ; finish off the air-chamber, running the point of a knife (or any sharp instrument) around the edge, making a small crease, and cut the mould round, so that a strip of paper can be folded around it sufficiently tight to hold the metal when poured in. But first oil this plaster cast, and make another from it by pouring plaster over it; when set and trimmed around, separate it and dry it to keep for further use. Also dry the plaster cast which came from the wax impression, and when perfectly free from moisture, wrap a strip of ordinary paper around it three inches in width, so that it forms a cup to receive the metal, and fasten it with a wafer; pour in upon this, melted fusible metal, (8 parts bismuth, 5 lead, and 3 of tin,) when it is almost ready to cool, and in this way get a perfect female mould; when cold separate it from the plaster with care, cover it with lamp smoke, wrap paper around it in the same manner, and pour in fusible metal for the male mould. Then make a second set of dies from the same plaster cast, which, if properly prepared at first, will still be perfect; and still another set may be made, if thought necessary, although I find this number sufficient. While these are cooling make a male and female die in lead from the same plaster of Paris mould for one, and the one taken from that already put by for this use, for the other; wrapping paper around them also to hold the lead, but put enough to surround the plaster four or five times; pour in slowly the melted lead almost cool, and the paper will hold. You have then two (or more) sets of dies of fusible metal, and one set of lead. Of the fusible metal, select the most perfect to be used at last, and commence striking up the plate between a male fusible metal die and female lead. When the plate is getting into shape, use the female fusible metal die with the male lead, and here is the advantage to be got from having a male lead die, which, being softer than the fusible metal, allows the latter to stamp up the plate more perfectly around the air-chamber; use these only once or twice, then use the same male and female fusible metal dies together, until the plate is as perfect as it possibly can be made with these, and shows every mark of the gums, also distinctly the edge around the air-chamber. Now finish the plate with the new dies, first using the female fusible metal with the male lead, only once; and then the male fusible metal with the female lead, until the plate exactly fits the plaster cast; striking it up once or twice will be sufficient, and you have a perfect atmospheric pressure plate as easily and quickly made as an ordinary one, with the exception of the extra trouble and time in making the moulds, without the use of iron pans or anything else but a few strips of common paper and the pliers to turn over the edge of the plate in the commencement, besides using less metal. At least I have never known one to fail, either for a whole or partial set, and sincerely hope some one will profit by my experience.

If there are a few defects in the female plaster cast, as well as in the two lead dies, it does not matter; the cast becomes more perfect from use with the fusible metal, besides, they only assist in stamping up the plate, which is made perfect by the fusible metal dies.

I use fusible metal in preference to any other for all dies; but it must be allowed to cool gradually, and never be put into cold water for this purpose, which makes it very brittle.

Respectfully yours, &c.,
Horace T. Fogg.

San Paulo, Brazil, S. A., *December 5th*, 1858.

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For the Dental News Letter.

## LATERAL PRESSURE.

Editors Dental News Letter:—In the October number of your journal I noticed a very interesting communication which was read at the late American Dental Convention, at Cincinnati, by Dr. McCalla, and I give to you the following case which came under my observation, in support of his theory.

About three months since, a young lady called at my office, suffering from a severe pain in one side of her face and head, originating, as she thought, from one of the right superior bicuspid teeth, and asked my advice concerning it. I examined thoroughly the teeth upon that side, but could discover no signs of disease, except a very small cavity in the wisdom tooth, which had lately made its appearance. This, to my mind, was not sufficient to produce pain; but as the arch was complete, and the teeth in a crowded condition, I recommended its removal, to which she consented, and since that time, she has been entirely free from pain: the trouble arising, as I judged, from lateral pressure, caused by the eruption of the wisdom tooth. I think many times practitioners are led to attribute pain in such cases to neuralgia, when in fact it arises from causes similar to that which I have named.

Yours, &c., G. A. Gerry.

Lowell, Massachusetts.

For the Dental News Letter.

## DR. ELISHA TOWNSEND.

The compilation of a biography of Dr. Townsend would be an easier task than the condensation of its abounding materials into a brief memoir for the columns of a professional journal. The just demands of the subject, the feelings awakened by the thick crowding memories of the social life of the man, the commanding points in his professional history, fall overwhelmingly upon the hands that are compelled to compress them into the space here allotted for their presentment.

His professional life covers a quarter of a century of the most eventful period in the history of dentistry. He entered it when there were not yet five hundred practitioners of the art in the country, and not a tithe of their number were fairly up to the measure of their pretensions. A handful of the best and worthiest of them, something less than twenty years ago, undertook the herculean task of delivering their calling from the odium and incapacity which then clung to the profession's reputation. Its science, handicraft, system of tuition and modes of practice were in a deplorably low condition, and the general character of the majority of its professors or pretenders was as bad as it could be. Dentistry had worthy disciples then, but it had neither its proper libraries, colleges, journals, nor professional associations. A few select men, about the year 1840, generously and bravely undertook its destiny. They formed the American Society of Dental Surgeons. Since that day the profession has advanced to a position that, compared with its commencement, and measured by the time that has accomplished the change, looks more like the rush of a revolution than the onward pace of a natural growth.

Dr. Townsend had the singular experience of starting in the career of this great reformation with the earliest, keeping abreast of the foremost, and closing his public life in a position where all the honors of a well-earned victory rewarded the labors of the heroic endeavor. He entered the fraternity in the day of its exclusiveness—the day of pledges, appeals and protests; he lived and served in it till its authors and orators had forgotten to confess and deplore its degradation; until it could bear without blushing the recollection of its old-term charlatanism; until it had fully vindicated its just ambition to rank itself with the sister branches of the remedial art; until public opinion had awarded it a respectful consideration; until the medical faculty had fully conceded its claims to fraternity; until its standard works had grown to a complete professional library, its colleges provided thorough professional instruction for its pupils, its periodicals risen to meet the requirements of an honorable profession, and its membership had reached the crowning point of worthily respecting themselves.

What agency had he in all this great success?

In the first place—first in point of proof, and first in value—he attained the very highest position in the Union as a practitioner of dentistry. In his private practice his patients were of that grade and character whose confidence is the best praise, and with them his reputation was the most honorable that any man in the country has ever achieved. Dentistry has this distinction among the branches of the healing art, that it is more open to unprofessional judgment than any of them, and is, therefore, more within the competency of popular opinion. The well-established reputation of its practitioners is for this reason entitled to the greater weight in making up a judgment upon their pretensions. But the enviable professional reputation of Dr. Townsend was as fully endorsed and as unreservedly accorded by the best of his compeers as by the most attached among his patients. No man, living or dead, holds a higher rank in the estimation of the best qualified of his brethren. His patients and his professional judges thus join with one voice in awarding him a rank and reputation unsurpassed even by the best in that multitude of distinguished men who now grace the aristocracy of his art.

Thus eminent as a private practitioner, he was at least equally distinguished by his public services to the profession. His labors for elevating and liberalizing it were incessant during the fifteen years which embrace the most striking incidents in its progressive career. More especially since the year 1850, his agency appears effectually in every forward and upward movement of the profession. A friend has furnished us with above thirty references to his essays, addresses and communications, published during these ten years in the Baltimore, Philadelphia, and other repositories of dental literature. These, we know, record but a small portion of the labors devoted to the general interests of his profession. The topics of several of them are, the means, methods, aims and duties of professional life and progress; collegiate education in dentistry; the agency and utility of associative effort among practitioners for the advancement of their common interest and honor; introductories and valedictories delivered before collegiate classes; essays upon professional fees, dental patents, and the minor morals of professional conduct—extensive and varied enough for a volume of classical miscellanies, and comprehensive enough to serve as a directory for professors and students, in the conduct of their public and private duties.

Dr. Townsend was qualified for the position of representative man among his peers, by his intuitive discernment of the exigencies and opportunites for effective action, and by a special tact and talent in giving form and acceptance to the movements for which the general mind of his associates was prepared. The prejudices, jealousies and most stubborn commitments seemed to dissolve at his touch. Reformatory measures, bold enough in their bearings to surprise and offend, received an acceptance when he presented them as general and frank as if they had been familiar favorites. The recission of the old amalgam pledge, the dissolution of the old Dental Association, and the establishment of a new organization, as broad and liberal as the former had been exclusive and rigid, went through his hands as smoothly as the most common-place business of the day.

His absolute disinterestedness, his frank and genial unselfishness, his large-hearted liberality, worked like magnetism upon his associates, and they yielded to it without the alarmed consciousness that they were led—they seemed to mistake his influence for their own spontaneous inclinations. They found him ever forward to render the services required, never anxious to gather the honors or fill the position of a leader. The power was in his sincerity, the charm in his generosity and affability. There was no trouble in disposing of him on grand public occasions, he did not need to be conciliated by posts of honor ; no trouble in securing his best services at the moment of need ; only find the place where he was needed, and the performance was sure to more than answer the expectation. Heart, hand, head, house, purse, were ever ready, as a matter of course, to meet the largest demands of the occasion. Ah, those most familiar with these reliable excellencies of the man, will understand them even better by their loss than they did by their use.

In 1851 he took a leading position in the defence of separate colleges for classical instruction in dentistry. His arguments had the purposed effect then, and the demonstrations they contain will serve hereafter for guidance in the improvement of the system which they contributed so largely to establish.

In 1852 he took the chair of operative dentistry in the Philadelphia College, which he and his colleagues established. His general introductory to the course of lectures then commencing, was listened to with more than the usual pleasure and interest afforded by similar discourses. This address, published in the *Dental News Letter* for January, 1853, and another delivered before the Pennsylvania Society of Dental Surgeons, in October, 1851, may be read with profit upon all the points involved in the enterprise of independent Dental Colleges.

Dr. Townsend held his chair in the Philadelphia College during the sessions of 1852–3 and 1853–4, and upon its reorganization, under the name of the Pennsylvania College of Dental Surgery, he again filled the same chair in the session of 1856–7. His health failing in the autumn of 1857, the honorary position of Emeritus professor was awarded to him by the trustees and faculty, and his labors as a public teacher ceased. How faithfully and how ably he performed the duties of professor and clinic lecturer in this institution, is attested and remembered by the classes that listened to him; and by those gentlemen of the dental and medical faculties who, attracted to a frequent attendance by the interest which he threw into his lectures, availed themselves of the opportunities which his cordial welcome afforded them.

This is, perhaps, not the place to discuss the method which he adopted for teaching the principles and practice of operative dentistry; but it may be allowed to say here, that his system was *distinguished* by following the natural order and dependency of the phenomena with which it was concerned; following the route of discovery, and the order of fact and theory in which they are most naturally and best learned by the pupil. He avoided the common method of books and teachers, of opening with what are called the fundamental or essential principles of the subject; perceiving with the quick common sense of the well made self-made man, untrammelled by systems which are necessarily inexact in the proportion that they are general; that the summaries and generalizations, which we call essential and fundamental principles, are really the very latest discoveries of science, and its most abstract formulæ, and for the very reason of their compact comprehensiveness, are the farthest removed from the rudimentary quality which adjusts a complex subject to the capacity of the learner. He did not begin his course with the anatomy and physiology of the teeth; nor with their microscopic and chemical constitution; nor with their general or systemic relations and sympathies; nor with any other generalities or ontologies. He did not mistake the infinities of things for their elements and rudiments; he began with the outside first-blush appearances of the organs and their diseases, and proceeding in the discussion as actual discovery proceeds in conquering all that lies within and behind appearances, he conducted the pupil, with his senses and intellect awake and attentive, forward, as facts and principles (which are only more general facts,) unfolded themselves in their natural relations and dependencies. His class, we think, better than any other within our knowledge, were led by the right road, from step to step, till the whole track of inquiry was traversed and lay clear, plain and self-explained in the retrospect.

We do not mean to claim for Dr. Townsend the genius that arises amid confusion and disorder to reform the methods by which mind masters its dominions. He stood to his subject peculiarly and favorably circumstanced. He had never heard or read a course of lectures upon the branch of curative art which he was now required to teach. A demand for sixty or seventy lectures lay before him in his engagement with his pupils. He had not made any formal or special preparation for his task. Nothing in form, but everything in abundant readiness, if only the right array could be given to the knowledge gleaned from all the sources of study, and verified by a comprehensive, well-digested and well understood experience. System was wanting; where should he begin? Everything depended upon that. It struck him, "I'll begin at the *beginning*." That is the whole mystery of his happy success, and its real and simple explanation. It was fortunate for him that he did not fall upon the *right end* for a beginning, else he must have begun again, or stopped there.

To the writer of this article, it was one of the most interesting events of his life, to see a man fall upon the right method of doing a thing, generally ill done by the best masters, without even so much as thinking of, much less wrangling with, the wrong ones.

We have no syllabus of this his first course of public lectures within our reach, for his lectures were not written; but if any of his pupils will supply us with a tolerable outline, we promise a vindication of the method adopted, and would be glad to present it for the consideration of educators in all kindred branches of natural science which have life, its functions and diseases, for their subjects.

Whatever difference of opinion may be entertained upon the matter, theoretically, the results admitted of no controversy; the teacher was happy, in every sense of the word, in his lectures, and the pupils were in like manner happy in receiving them. We are perfectly safe in saying that no professor ever better met the wants and expectations of his class, or was better satisfied with his own performance of an onerous duty, whose importance he fully understood, and clearly desired to perform to the best possible effect. His chair, indeed, has advantages over any other in remedial art, operative surgery excepted; but he succeeded in making the best of all its advantages.

After his health forbade him to add the daily lecture of his chair and the clinic of the college, to the labor of his very large practice, he still engaged himself with the unfinished work of organizing the national association of dentists, with which his heart was so long and so ardently occupied. He held the office of President of the old American Society at the time when it had well fulfilled its objects, and prepared the way for the "American Dental Convention," which has now replaced it. This last organization, we will be allowed to say, was more the creation of his own efforts, than of any other man or number of men who gave their aid to its establishment. He lived till he could say of this great work, "It is done." He had the singular fortune (for a zealous reformer) of seeing with his own eyes the ample fulfillment of many enterprises to which he had given his best endeavors. Only one grand measure to which he devoted himself, remains yet unaccomplished. He did not press it unduly, but he provided for its success, and the time is not far distant when it must be adopted; we allude to his endeavor to introduce into the code of dental ethics a prohibition of dental patents. The profession must come up to this ground before it can call itself a thoroughly *liberal* art. When this last upward step is taken in its government, his labors for the honor of American dentistry will have terminated in complete success. Then the American Dental Convention, under whatever name its national reunions shall be held, may turn their faces proudly backward upon the pioneers and apostles of the faith, and say, "We have honored your memories; we have fulfilled your aspirations and hopes for your successors."

Of the man as we knew and loved him—our friend, companion, associate and playfellow—what can be said of all that presses for utterance? The feeling of the loss is too fresh, too heavy upon mind and heart, to allow deliberate portraiture. A change has fallen upon his household, his hospitalities, his intimacies. The absence of that genial, joyous, generous, warm-hearted, playful friend seems as yet but a casual interruption of our customary intercourse. That richness in all the qualities, abundance in all the means, and electric quickness in all the impulses, which make friends happy and keep them safe, assured and hopeful, is still so vivid, so clear, that it seems more a presence than a memory. It is hard to realize the sudden quenching of that gladdening light of our every-day life; it is very hard to understand that he is dead.

In December, 1856, he was attacked with typhoid fever. It held him confined till late in the following spring. The summer brought some, we hoped, promising improvement, but not perfect restoration.

Dyspeptic delicacy of appetite and something more of debility than we were willing to see, remained to warn us of danger; but the spirit and bearing of the man was a matter of character which physical conditions could not alter, and it was hard to see that the tide was running out; it seemed as full and fresh in its ebb as at its flow. He attended the Dental Convention at Boston, in August—his last meeting with his life-time friends and co-laborers in the profession. They will remember it long.

He resumed his office labors in the fall. His habitual industry and punctuality kept him at work long after he was quite unfit for such occupation. In mid-winter, he was attacked with something that resembled bronchitis, attended by paroxysms of spasmodic coughing. It was the storm with which the fatal attack set in. Soon the symptoms resolved themselves into a plain organic affection of the stomach. In March, 1858, accompanied by Mrs. Townsend, he visited Georgia. In the middle of May they returned, disappointed of the benefits expected from a milder climate. The spring wore on heavily, and summer came, and with it a steady increase of pain and debility. On the 3d of July, he sailed, in company with a friend, for England. The voyage was not unfavorable, but it afforded no benefit. A few days' residence in London sufficed to change his purpose of visiting the Continent; he came home again, for the last time, on the 11th of August. It was now plain, even to the fondest hopefulness, that he was failing rapidly. With a patience and tranquility as steady and gentle as a man composing himself to rest, he bore the days and nights of waiting, while his admirable frame was breaking and his strength sinking, until the welcome relief came on the 13th of October.

His habits for years had been of the most exemplary kind, and his health and hardihood of physical organization seemed as perfect as a boy's freshness mingled with a man's energy could make him. Nothing ever tempted him to the most trivial indulgence in the pleasures of the table. He carried his festivities ever with him in nerve and muscle. He never allowed work to interfere with relaxation and recreation, though he was, if anything, over intense in application to business. He never spared himself in the performance of any duty, professional or social. There was something too much of tension in the tone of mind and body in his daily avocation, but he systematically threw care aside, when duty was done, and was, in leisure as well as in labor, a perfect model of a well-regulated life. Yet he died in the very vigor of his manhood, at the age of 54!

Our reasonings are all at fault. The mystery is past our divining.

No man ever lived better; had a better constitution; a finer or firmer flow of wholesome happiness; derived more pleasure from the amenities of society, the charities of life—domestic and social. None ever had a better hold of himself, for guidance and government; a better command of the conditions of comfort and pleasure; more success in all his undertakings, or was better contented with all his circumstances; yet he died in his prime. Those who knew him and loved him, are at once bewildered and bereaved. W. E.

For the Dental News Letter.

## BASIS OF A NATIONAL DENTAL ASSOCIATION.

During the past two years, no subject that has engaged the attention of contributors to the Dental Journals, has been a more prolific theme of animadversion than the proceedings of the Dental Convention. Though some of the communications have been characterized by a spirit of vituperation that was uncalled for, others couched in language of refinement, have shown that the later sessions of the organization have failed to meet the demands of the profession for a more accurate science, and a more perfect art. So universal, indeed, is this feeling, that many who gave it a hearty support in the beginning, have of late held entirely aloof from it, and now it is asserted that many of its best members, who have supported it to the last, and whose praiseworthy efforts and services have been the redeeming features of the Association, have determined to abandon it. How deep or extended the sentiment may be with these gentlemen, it is impossible to say, but the assertion is made upon unquestionable authority.

This spirit is in keeping with the whole tendency of our time for innovation, revision, and, where possible, reconstruction, according to an advanced idea. Never at any period was the iconoclastic spirit more rampant than now. The land is strewn with the wrecks of broken idols. Doctrines respectable from the very grayness of their antiquity, are rudely hauled up to the bar of popular judgment and as summarily dispatched. Social and political dogmas that have stood undisturbed for centuries, recognized of all men as true and real, vanish into thin air before the sharp scrutiny of modern inquiry.

Among the consequences of this peculiar intellectual activity of the age, we have doubtless many absurdities, much denial of what is really true and excellent, much idle questioning of the palpable and ten times proven, much painful assault upon the essentially good and venerable. These, however, are but its abuses and extravagances.

It is doing, notwithstanding all this, a priceless work for the world. The errors it has destroyed, the facts it has accumulated, the discoveries it has made, and the principles it has evolved, are of immense account in the aggregate. In addition to this, it has disseminated a more free, discursive, and profound spirit of philosophical inquiry, and the idea of a continuous scientific progress, and an ever perfecting artistic development, as yet without apparent limit, although necessarily finite, has become almost universal, and permits no pause in our onward career. All the mighty things that have been done, are regarded as but the earnest of what man can and soon will do. The Utopean dream of yesterday is the accomplished fact of to-day.

If that which originated in the early periods of the worlds's history, and had become time-honored and venerable on account of its antiquity, is thus summarily dealt with, why should there be a hesitancy in *revising* or *reconstructing* an organization that has become impotent, though but recently established. It was intended indeed only to subserve the exigencies of the period, and to prepare the way for a more permanent and useful association. Its very name, CONVENTION, implies the ephemeral, not the persistent. The absence of a *constitution*, *laws* or *qualifications for membership*, partakes of the transient, not the established.

That there was an *absolute* demand for such an organization at the time of its formation, few who are familiar with the history of the profession will deny. And it must also be acknowledged that it has been instrumental in accomplishing a great work, by bringing practitioners from different parts of our wide-spread country in contact with each other, thus affording opportunities for an interchange of views in theory and practice, and the establishment of pleasant relations between members far removed from one another by their respective fields of labor; but the most important service rendered, is the impetus it has given to the formation of numerous local societies. Its day of usefulness, however, is apparently passed; its absurdities censured with just cause; losing the support of its best men, its end seems near at hand.

In such an event the question naturally arises, what shall be the basis and character of the substitute?

On this point the following views are offered suggestively, only desiring, if they are inoperative, that a better and more practicable method may be proposed.

Every member of the profession, fully impressed with the dignity and importance of his calling, must deplore the inferior qualifications of many who have been long engaged in practice, and of numbers of those who annually enter the ranks of the profession. In his individual capacity, or through the medium of local societies, he can accomplish little towards a general reform; and it is only to a body *representing* all the various interests of the entire profession of the country, that he can look to, as the proper medium through which to effect so desirable a change.

To give it stability and character, and deprive it of any approach to a *clique*, the proper basis of such an organization would be a representative body, composed of delegates that have received their appointments from permanently organized Dental Societies, and regularly constituted Dental Colleges: each society possessing the advantage of sending to the association one delegate for every five of its regular members, and the faculty of each College enjoying the right of being represented by one delegate. Consisting of delegates, representing on a liberal scale every interest of the profession, (the Dental Societies, state, county and local, and the Dental Colleges,) it would exercise an influence and wield a power possessing all the force and energy of a government. Deriving its just powers from the consent of the governed, it would rest its claim of authority on the equitable principle that in representative bodies the majority must rule.

It may be urged as an objection to a representative basis, that the number of organizations are not sufficient to form a body of delegates of any size, but this drawback would decrease each year, on account of the stimulus such an association would give to the development of local societies; and, in addition to the delegates, there could be *members by invitation* and *permanent members.* The first to consist of practitioners, of *reputable standing*, from sections of the United States not otherwise represented at the meeting. These, receiving their appointments by invitation of the meeting, after an introduction from any of the members present, should be entitled to participate in all its affairs, as in the case of delegates. The second, or permanent members, to consist of all those who have served in the capacity of delegates, and of members that have received their appointment by invitation.

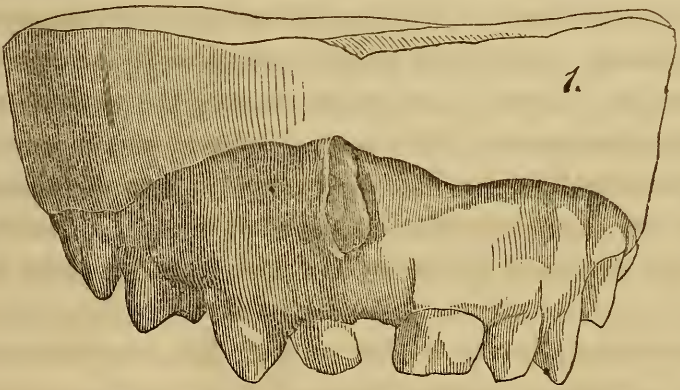
Such is the basis of the American Medical Association, which has operated with the happiest results for years. Such (the representative) is the basis of all popular government, and of our great national confederacy. Why can it not be the basis of an American Dental Association? JUNIUS.

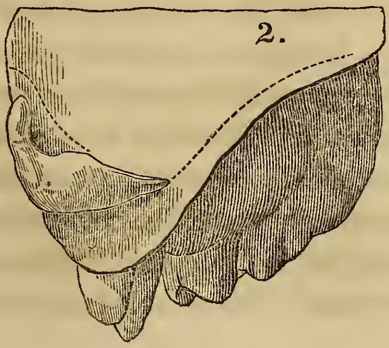
For the Dental News Letter.

## A SINGULAR CASE.

REPORTED BY D. H. GOODWILLIE, D. D. S.

The following singular case came before the class in the clinic of the Pennsylvania College of Dental Surgery. Mr. Herrman Rottenstein, of Germany, a member of the class, presented himself to be operated upon, for what appeared to be a tumor or a misplaced tooth. This was situated directly above the right lateral incisor and immediately below the alæ nasi of that side and was of considerable size. From external appearance and situation, it resembled very much the form of a bony tumor rather than that of an advancing tooth. After he was sufficiently etherized, an incision was made and the part laid bare. The alveolus was cut away next, but this was very thin. There now remained what appeared to be the root of a tooth. This was laid hold of with a sharp pair of forceps and extracted without much difficulty. This was the right central incisor which was wanting in its proper place in the arch before the operation. The tooth had a very peculiar shape, as the cuts will show. No. 1 shows the front view of superior arch, the absence of the right central incisor and the lateral incisor in its vertical direction, and above this, the protuberance after the alveolus was removed. No. 2 is a section of the superior maxillary, showing the shape of the tooth and the position it occupied. The dotted line representing the margin of the antrum. Here we see the tooth turning directly backwards and entering the antrum of Highmore, the labial surface of the tooth lying on the floor of that cavity and the lingual surface presenting itself upwards. Upon the posterior cutting





edge of the tooth there was a slight defect in the enamel, which was a little softened. Under the microscope it had all the appearance of caries.

This case is somewhat peculiar from the fact not only of the singular direction the tooth took, but from the difficulty of diagnosis. It had been examined by eminent dentists and surgeons, both of this country and Europe, and pronounced by some to be a tumor and by others to be a tooth. Perhaps the difference of opinion in those who examined it may be due to the fact, that on probing it, the resistance felt was not smooth like the enamel of a tooth, but had a rough surface, as is the case with the root of the tooth which presented itself. Had this probing let out the gelatinous fluid which came out after the extraction, it might have been pronounced colloid cancer, as this fluid is characteristic of that disease.

What the true cause of this malformation is, remains yet to be investigated. That the germ of the central incisor has been thrown back from the position which it should naturally occupy, is evident from the place which it now occupies, and it is most probable that it was nearly above that of the lateral incisor. As these ossify they come in contact: the central incisor's direction is downwards, but the lateral incisor's direction is forward towards the central incisor and also inclines downwards. The central incisor, yielding to the resistance of the lateral incisor, inclined backwards into the antrum. The defect in the enamel on the posterior edge of the incisor, I am of opinion, was produced by pressure of the lateral against the central incisor.

Whatever may have been the cause of this, it is interesting to the profession, as it does not often occur.

For the Dental News Letter.

## LARGE PLUGS.

We often think how much labor we perform to very little purpose. It is not sufficient that we are paid in money for plugging a tooth, which requires a great amount of labor. It ought to serve the patient for a sufficient length of time to be equivalent to the money expended. One man's labor can only be more valuable than another's to patients, in proportion to the length of time it supplies their need, at least in plugging teeth. We are led to these remarks by the frequent failure of large plugs to give entire satisfaction to the patient. They may look well and please the patient for the time. We do not disapprove of plugging large cavities, but we think more judgment might be exercised in many cases, and the patient better informed as to the probable results.

A lad of fourteen years of age applied to us a short time since, to have some operations performed. He had one plug in his pocket, which weighed 27 grains. He said he had lost a piece of it. It was from an inferior first permanent molar, in which the pulp had been destroyed, and the tooth plugged about one or two years. The pulp cavity was still plugged. The crown plug had been lost by the breaking down of the walls of the cavity. They had broken down a little more than half way to the pulp cavity. There was some softening around this cavity which we removed with the plugging, and refilled the case, filling the pulp cavity after it had been cut out; brought the plug nearly out to the margins of the former crown cavity, and by filing the rough margins away a little, it left a cup-like finish of the plug and cavity, and will doubtless do well. The tooth was healthy in the socket, with a strong alveolus. We think this case might have been operated on in this way in the first place. These cases, in young patients, especially, are not to be relied on for any length of time, unless it be where there are no opposite or antagonizing teeth; and besides, when the pulp of a tooth is destroyed, the enamel as well as the bone becomes very brittle or soft. We are in the habit of cutting such teeth away much more now than formerly. A large number of the plugs that are lost, either fall out of their cavities for want of hold, or from breaking of the walls of the cavities. This plug, weighing twenty-seven grains, must have required a great amount of labor.

We have heretofore given the aggregate amount of pressure or weight necessary to consolidate a given amount of gold, tested by a dynamometer arranged for the purpose; and we recollect one case where two thousand pounds aggregate pressure had been employed; the plug weighed a fraction less than four grains. Now we are quite sure that the boy's plug, or the portion he gave us, was equally as hard as the one we made with the two thousand pounds pressure. This being true, it must have required the enormous aggregate pressure of fourteen thousand pounds to have plugged only a portion of this tooth. Twelve dollars had been paid for this operation, but the short time that it lasted did not give satisfaction. We do not think too much was paid for the amount of labor performed, but we think that it was very injudiciously expended. J. D. W.

## THE PROFESSION IN ENGLAND.

[From our London Correspondent.]

Since my last communication, the profession in England has continued in an unsettled state. The unfortunate failure to amalgamate the College of Dentists and Odontological Society, caused by the manner in which the terms of amalgamation were submitted, has produced a disruption in the College which bids fair to close the institution. At the annual general meeting, on the evening of January 27th, Mr. Matthews, the President, in a most able speech, explained the position of the College; from which it appeared that its enemies had succeeded, by constant virulent attacks, (anonymous ones, principally,) in weakening it considerably. Thus the number of the members was reduced to 171; and although the Treasurer's statement showed a balance of £353 10s. 6d. in hand to the close of the year 1858, it was a question whether the members should not be called together for the purpose of devising means to secure a more satisfactory state of affairs.

I have good reason to believe that Mr. Matthews' observations will be acted on, and that a meeting will be held in March, when it is not unlikely a resolution may be carried, calling a public meeting of the whole profession, to consider the propriety of wholly re-organizing the College.

The Odontological Society, (albeit a private one,) strengthened by the accession of certain late members of the College, whose zeal to obtain favor elsewhere rendered them (to use a mild term) faithless to their early coadjutors—those practical men who first set the ball of professional reform in motion—have ventured to propose a curriculum, which requires more than the College of Surgeons, or any other college. It is needless to say that this curriculum will certainly be a failure. Our profession, entirely unorganized as it has been time out of mind, cannot be made perfect in a day, and no curriculum will answer, which is too severe *at first.* We must *grow* before we attain maturity in institutions as in other things.

It is probable that ere long a reasonable curriculum will be brought forward, likely to act effectively. Let it be hoped that the contemptible and miserable jealousies, the pride and vain glory, which have hitherto acted prejudicially against professional interests here for more than two years past, may not be allowed to offer obstacles to the carrying out of such a scheme.

Dr. Richardson's lectures at the College of Dentists, on the Medical History and Treatment of Diseases of the Teeth, are received with the utmost interest. Dr. R. has sifted the principal authorities in dental science, and his own original powers of observation have been added to the information obtained. Thus a most valuable addition may shortly be looked for to the stock of professional knowledge. Dr. Richardson, I may mention, is a distinguished ornament to the medical profession, who lately obtained the 300 guineas Astley Cooper prize essay, on the causes of the coagulation of the blood. The lectures, twelve in number, will be completed in March.

The Committee on Electricity in Dental operations, is still sitting at the College of Dentists. Their report may now be shortly expected, and as many very eminent practical men are upon the committee, a thoroughly scientific solution of the question of electricity in dentistry, may be looked for.

The Dental Hospital of London continues in operation, and is influentially supported, but the attendance of patients is not satisfactory. This may be owing to the hospital only being opened from half-past eight to half-past nine o'clock (one hour) in the morning, for the reception of cases.

London, February 24, 1859.

For the Dental News Letter.

## ALUMINIUM PLATES.

BY D. VAN DENBURGH, D. D. S.

Messrs. Editors:—In answer to your request for an article for your periodical, on the subject of casting dental plates of pure aluminium, I can at present only say, that in so far as its manufacture is concerned, my experiments have resulted in satisfactory success. Pure aluminium can be cast into dental plates, that, in the qualities of fit, strength, lightness and mechanical beauty, are all that can be desired. This metal when pure and properly managed, will not shrink in changing from a liquid to a solid state. In this quality is the first requisite for casting plates, and their fit is consequently as accurate as the impression from which they are made. In strength, cast aluminium plates far excel all other kinds of dental work I have made full upper cases, weighing not more than half an ounce, that I could not bend with my hands. Both in the attachment of the teeth to the plate, and in the plate itself, there is certainly five times greater strength than in the best made gold plates of the same weight. Their weight, as may be inferred from what I have said, and as all who are acquainted with the metal must know, is principally in the teeth. The largest and heavist upper case need not weigh over fifteen pennyweights.

Their mechanical beauty need not be inferior to that of any other kind of work. Single teeth or sectional blocks may be used, as in casting tin and its alloys; though those made for that purpose, with holes and grooves for the reception of the metal, are not so well adapted for this. Those made for me by your firm, with a shoulder over the platina pins, answer the purpose well. Of course the filling up and restoration of the form of the jaw, may be effected with this metal without objectionably increasing the weight of the plate. The saving of time and labor in their manufacture is very great. This work is well adapted for partial cases. Perfect and easy adjustment to the natural teeth, aided by suction chambers, renders the use of clasps unnecessary. The attachment of the teeth to the plate by platina pins, permits the tooth itself to rest on the natural gum, and yet have abundant strength, which is often desirable in partial cases. Though it is with great difficulty that this metal can be soldered with any other metal or alloy, it is easily mended with itself in the same manner that the plates are made. These are facts, and they sufficiently demonstrate the value of this metal for dental purposes, so far as its mechanical qualities are concerned. The practical test of time can alone determine whether it will resist the chemical agents liable to act upon it in the mouth in a satisfactory manner. If I were to form an opinion from a test of half a year, during which time I have had plates in use, it would be entirely in its favor. The purity and cleanliness of these plates are subjects of particular praise by those who wear them. The metal is known to resist the action of acids equally well with gold and platina for this purpose, and though it has been but a few years used in the arts for any purpose, there is good reason to believe that it will prove a valuable substitute for gold and silver, not alone in our art. Until within a few days I was not aware that similar work had ever been made. There was, however, in England, in 1855, a patent granted to an English dentist, for casting dental plates of aluminium. I have taken measures to learn his experience in relation to the action of the metal in the mouth. If it proves as durable as it surely is in other respects good, it cannot fail to be very useful to the mechanical dentist. I hope soon to give you an article more particularly in reference to my method of casting these plates.

Oswego, March, 1859.

For the Dental News Letter.

## THE SCHOOLS OF PHILADELPHIA.

The commencements that have occurred in Philadelphia during the past month, invites attention to the fact, that there are employed, as means of medical instruction, in our city, at the present time, seven colleges, two private courses of Practical Anatomy, nineteen hospitals, three dispensaries, fourteen courses of special lectures, by gentlemen who are not connected with the colleges, on Pathological and Microscopical Anatomy, Operative Surgery, Diseases of the Eye and Ear, Obstetrics, Theory and Practice of Medicine, Principles and Practice of Dental Surgery, Pharmacy, etc., and thirteen private associations for office instruction and winter examinations, making a total of fifty-eight organizations. It will suffice to name only the principal of these, with the number of matriculants and graduates of the different colleges of session of 1858–9.

| | | | | |
|---|---|---|---|---|
| University of Pennsylvania, | Matriculants, | 410 | Graduates, | 140 |
| Jefferson Medical College, | " | 570 | " | 256 |
| Pennsylvania Medical College, | " | 130 | " | 33 |
| Philadelphia Medical College, | " | 70 | " | 19 |
| Pennsylvania College of Dental Surgery, | " | 48 | " | 25 |
| Philadelphia College of Pharmacy, | " | 88 | " | 21 |
| Total, - - - | | 1,316 | | 494 |

In the hospitals every opportunity is afforded for observing clinical practice, medical and surgical, at a moderate expense. The staff of these institutions is composed of physicians and surgeons, who rank with the first of the age. The Pennsylvania Hospital, the oldest organization, was established by Dr. Bond and Benjamin Franklin, in 1751. Next in importance comes the Philadelphia Hospital, Wills' Hospital for Diseases of the Eye and Limbs, City, St. Joseph's, Episcopal, Charity, the hospitals connected with each of the medical colleges, and the clinics of the Dental College.

In addition to the advantages already enumerated, Dr. Thomas D. Mütter, Emeritus Professor of Surgery in the Jefferson Medical College, recently donated to the College of Physicians, of this city, his extensive and valuable anatomical and pathological preparations, specimens, models, drawings, cuts, etc., to serve as the basis of a museum, to be denominated "The Mütter Museum." Dr. M. has also endowed the institution with $30,000; the interest to be devoted to increasing the museum, the payment of a curator, and the salary of a lecturer on surgical pathology. The specimens are to be employed by the Mütter lecturers, and free access is to be had to them, under proper restrictions, by graduates and students, without charge or fee. *

For the Dental News Letter.

## TEMPORARY PLATES.

Messrs. Editors:—Some ten or eleven years ago, while engaged in the manufacture of block teeth, in Boston, I often had occasion to manufacture teeth for Dr. I. J. Wetherbee, of that city. I observed that his plates were uncommonly even, and devoid of those protuberances so common in most mouths, even where the teeth have been extracted for years; in fact, they looked as though the mouths from which they had been prepared, were "made to order," and were entirely unlike the plates of any other dentist for whom I manufactured. Dr. W., at that time, like many other dentists, had his "dental secrets," and was not at all communicative as to the *modus operandi* of arriving at so desirable a result. But, some two years since, I met him in this city, at Dr. Allport's, and he communicated to us his plan, which was as follows:

The model, no matter how rough and uneven the gums, was *whittled* down, until it was even and regular, as he desired the mouth to be when in a permanent condition. The plate was swaged up from this, teeth arranged and soldered, and then the plate placed in the mouth with springs attached. As a matter of course, the longer such a plate was worn, the better it fitted, so that soon there was a tolerable suction, and the springs could be removed. At the expiration of ten or twelve months, the gums were fully absorbed and very even and regular, and much less liable to change afterwards.

Dr. Allport suggested that we should try the plan, although not to the extent practised by Dr. W. We have done so, and with the most gratifying results. The models are pared quite freely, but not to such an extent as to require springs. By taking care to have the back of the plate fit snugly, I have never yet found any difficulty in getting a tolerable suction at the outset, which increases from day to day. When the set is first put in, let it be *well pressed up*, although the patient may *wince* somewhat at the operation.

We have had much less trouble with temporary work, and mouths in a much better condition for permanent work, by this plan than by the usual method. It may be objected that patients will not submit to the inconvenience and pain of such an operation. I can simply say, that after stating the necessity for such a course, we have not found any difficulty on this score, during two years' practice of the above method. In articulating, allow *only the biscuspids* to meet at first, as the molars will soon come together.

I will only add, that any dentist, after trying this plan for one year, will not return to the "old way." And if any one has doubts as to a plate staying in the mouth, that fits no better than such a one does, let him try the experiment.

L. P. HASKELL.

Chicago, February, 1859.

We always pair the casts to anticipate the shape of both upper and lower jaw. For that reason we never use plaster for taking moulds of the mouth, as the *perfect* fit so much talked about is of very little value; the gums changing all the time makes it necessary for the dentist to exercise more judgment in dressing his cast than taking the mould of the mouth. We fill up hollows and cut down hills on our casts, and if we cannot accomplish it sufficiently at first, we fill up hollows in the plate after the case has been worn for some time, in order to keep up a degree of pressure on the high parts of the gum to promote their continued absorption. There is nothing so absurd as to swedge a plate to fit an irregular gum in temporary work.

J. D. W.

For the Dental News Letter.

## ELECTRIC ANÆSTHESIA.

MESSRS. EDITORS:—I noticed in the last number of the *Dental News Letter*, your acknowledgment of the receipt of one of my circulars describing my method of applying electricity during the operation of extracting teeth, and from the nature of your remarks, I am led to infer that you did not fully understand the nature of my improvement; therefore, I will endeavor to give you my experience in the use of electricity in extracting teeth and the plan I have adopted.

Having used Dr. Francis' method for some six months and meeting with difficulties in its employment, I was induced to make some experiments, and I am now satisfied that by my plan of applying it, in the most of cases all difficulties may be overcome.

In my experiments, I found that by continuing the current for some time—usually from two to five minutes—that electricity would act as a local anæsthetic, and in order that it should produce no unpleasant effect to the patient, the current should be reduced very low at the beginning and gradually increased in proportion as the part becomes insensible or accommodates itself to its action, until it shall be sufficiently insensible to warrant the extraction of the tooth. Practice alone will enable the operator to determine the amount of electricity and the length of time in each case. Of course, the operator should be guided by the amount of pain that he is likely to cause in the case before him.

My mode of operating, is to apply the current to the gum of the patient, opposite the tooth to be extracted, by means of a piece of sponge wet in water and insulated on one side in order that the current cannot escape through the patient's cheek or lips. The sponge being attached to the negative pole of the machine is placed on the gum of the patient and held in its place by the operator; the patient is then allowed to take hold of the positive pole very lightly at first, gradually grasping it close in the hand. The rod may now be gradually introduced, and continue to increase the current only in proportion as the part becomes insensible. The operator may ascertain—the patient may tell him—if he increases the current too fast; some persons will take it much faster than others. Having increased it for some time, usually from three to five minutes, the gum will be found quite insensible; the operator may now proceed to lance the gum, put on his forceps and remove the tooth. Now, the reader will see that the current is applied to the gum independent of the forceps, consequently the part is made insensible to all pain before commencing to operate and kept in that state as long as pain would be felt; the operator can lance the gum, put on his forceps, the forceps may slip off the tooth, or the tooth may break, but it all makes no difference to the patient, from the fact that the part is insensible to pain, and in the case of getting hold of fangs that are short there is no shrinking away from the forceps. The operator can perform with much more certainty and can take his time: the after pain will seldom be felt, from the fact that the gum is in a state of insensibility, and after the sponge has been removed it will take the part some time to recover its normal state, and in the most of cases, as long as the after pain lasts. If the pain should continue, the sponge may be placed again on the gum in order that the patient may be relieved. The forceps should be insulated from the hand of the operator: I use cotton cord for wrapping the handles of my forceps; if this is not attended to, the operator will take a part of the current from the patient. I claim and have secured by letters patent, the application of electricity to the teeth or gums, or both, during the operation of extracting teeth, and I will say that, after the plan described, I succeed to my own satisfaction and that of my patients, and believe it to be just the thing so long looked for, as it can be used without any unpleasant effects whatever, and is perfectly safe, and in the manner that I apply it, (gradual,) it is of benefit in all cases of nervous patients, not only as far as pain is concerned, but it will stimulate the nervous system to action and enable the patient to throw off all disposition to fainting.

J. S. Simmerman, D. D. S.

Glassboro, N. J.

For the Dental News Letter.

## IMPRESSIONS.—MODELS.

Messrs. Editors:—If you think the following worth publishing, you are at liberty so to do.

Of all the different methods of taking an impression for an entire set of teeth, none is so easy to the operator, or agreeable to the patient, as the ordinary one with wax; and yet wax is so liable to adhere to the mouth, and become displaced by the great effort required to detach it, that many have tried and are using other materials. To prevent an impression from adhering, nothing more is necessary than to in some way introduce air between the wax and gum. The method by which I have been able to overcome this difficulty is, after taking an impression with wax in the usual way, I take it from the mouth and cut a groove in that part of it corresponding to the centre of the palatal arch, running from where it just begins to sink into the alveolar depression backwards as far as the wax extends. I then reintroduce the impression and press it firmly up until I am satisfied, and as soon as I remove my hands, the impression drops, and can be removed without difficulty. This groove causes a ridge to appear on the plaster casting, which can be easily removed, since it is on a level surface.

I have, besides, a method of getting a mould in sand, different from any I have ever seen or heard described, which may be of some use. Some four years ago, while puzzling over an entire upper plate, which, from some cause or other, I could not prevent rocking, (and rocking plates are my abhorrence,) I hit upon the following expedient: After getting a mould with sand in the usual way, I removed the plaster model, and cut therefrom about one-fourth of an inch or more in depth of the alveolar ridge all around the cast, and putting the model thus trimmed back into the mould, tapped gently upon it, until I had settled it a little into the sand, thereby depressing the palatal portion of the mould without interfering with the alveolar; and then proceeding in the usual way, I found that the plate could not by any means be made to rock, and could scarcely be removed from the mouth. Continued experience has demonstrated the utility of my plan, and I am confident that it is capable of superseding all forms of air chambers.

Hoping that these few lines may be of some benefit, I remain

Yours, &c., S. T. Barrett.

Port Jervis, March, 1859.

For the Dental News Letter.

## PROCEEDINGS OF PENNSYLVANIA ASSOCIATION OF DENTAL SURGEONS.

A special meeting convened on the evening of December 21st, at 8 o'clock. Vice President, T. L. Buckingham, in the chair.

Dr. J. F. Flagg, having been appointed to read an essay at the meeting, responded, and read a highly interesting paper on exostosis.

Upon its conclusion, Dr. Suesserott presented the following:

*Resolved*, That the thanks of this Association be tendered to Dr. J. F. Flagg for his able paper, and that a copy be requested for publication, which was adopted.

Dr. McQuillen followed, coinciding with the views of Dr. Flagg, with the exception that exostosis is often the result of alveolar abscess. He believed that exostosis may be followed by alveolar abscess, but not *vice versa*. He described the normal nutrition, and the abnormal, as seen in atrophy and hypertrophy—the first being the absence of due nutrition, the last being the excess of nutrition to the part. Exostosis must be produced in a living periosteum, and must have an excess of nutrition, and as soon as that nutritive action ceases, exostosis no longer continues; while in alveolar abscess the periosteum dies and is not dependent on nutrition for its development.

Dr. Flagg followed, and explained how he supposed exostosis could be produced by alveolar abscess.

His views seemed to coincide with those entertained by gentlemen present.

Dr. Harris would like to hear more on the subject of constitutional causes of exostosis. He had seen cases where many teeth were exostosed in the same mouth, which he believed were produced by constitutional causes, and thinks the disease is not often the result of inflammation of the gums.

Dr. Fouché thinks that the disease is not often produced from diseased action in the teeth. He described exostosis of the alveoli; has seen five or six nodules in the bone.

On motion of Dr. Fouché, the By-Law that "no member shall be allowed to speak more than twice on the same subject without asking and obtaining leave from the members present," was, after some discussion, abolished.

Drs. McQuillen, Buckingham, Flagg, Suesserott, Fouché and Garrettson, made further remarks on the subject of exostosis, after which the subject of "Constitutional Causes of Exostosis," was chosen for next meeting.

Adjourned.

A special meeting of Association was held January 20, 1859, Vice President, T. L. Buckingham, in the chair.

Subject for discussion, "The Constitutional Causes of Exostosis."

The subject was opened by Dr. Harris, who believes that exostosis does occur from constitutional causes alone, and that it may be developed without local irritation of the gums. He read a short extract from Garriott, on diseases of bone, in which the constitutional causes of exostosis were mentioned. He could not agree with Dr. Flagg that in most cases caries was the exciting cause; but believed it to be owing to a state of the system, favoring and tending to a low degree of inflammation. He presented for inspection several exostosed teeth, some of them sound, and several of them taken from the same patient, and due, he believed, to constitutional causes.

Dr. McQuillen coincided with the views advanced by Dr. Harris, and instanced those patients suffering from tursory syphilis. We find a tendency to inflammation on the periosteum of all the bones; but more particularly in those bones that are more liable to be bruised and are nearest the surface, also suffering from changes of temperature, and he could readily understand how nodules could form upon the teeth, exposed as they are to changes in temperature, and active use in mastication.

Exception to the position assumed by Dr. Harris was taken by Geo. T. Barker, who, agreeing that exostosis may occur from constitutional causes, yet believed the cases very rare, and considered that sound exostosed teeth did not prove that the disease was constitutional, for a blow, or the presence of salivary calculi, may induce the disease in perfectly sound teeth, and though admitting it may occur when the system is affected by a specific disorder like syphilis, yet in that case believed that exostosis would occur in parts possessing more vascularity than the periosteum of teeth.

Dr. T. L. Buckingham believed that with many there was a tendency to this disease, (constitutional;) had seen patients whom he believed suffered from it, and thought that it was of frequent occurrence in elderly persons.

After a discussion of some length, the subject of "The Causes and Treatment of Alveolar Abscess," was chosen for next meeting.

A stated meeting of the Association was held Tuesday evening, February 8th.

On motion of Dr. Harris, it was

*Resolved*, That a committee of three be appointed to draft a scale or prices to govern the members of this Association in their charges to their patients. Which, after considerable discussion, was adopted, and Drs. Harris, McQuillen and Githens were appointed the committee.

Adjourned. GEO. T. BARKER, D. D. S., Secretary.

## ORGANIZATION AND PROCEEDINGS OF THE INDIANA STATE DENTAL CONVENTION.

Through the kindness of Dr. G. H. Perine, of the New York Dental Journal, we have been favored with a proof sheet, from which we make, hurriedly, the following brief abstract of the organization and proceedings of the first meeting of the "Indiana State Dental Convention," which was held on the 28th and 29th of December, 1858, at Indianapolis.

After the usual preliminary proceedings and the adoption of a Constitution, the following officers were elected for the ensuing year:—President, Dr. J. F. Johnston, Indianapolis; Vice-Presidents, Drs. J. P. Ulrey, Rising Sun; P. G. C. Hunt, Indianapolis; A. M. Moore, La Fayette. Recording and Corresponding Secretary—Dr. G. C. North, Indianapolis. Examining Committee—Drs. H. R. Hurd, Attica; J. Wood, Greensburg; P. G. C. Hunt, Indianapolis; J. P. Ulrey, Rising Sun; S. B. Smith, Terre Haute.

After an address by the President, abounding in noble sentiments, and filled with enthusiasm in the cause of dental progress, and making a strong plea in behalf of dental colleges, periodicals and associations, as the three important aids in professional advancement, the following subjects were taken up in order and ably discussed.

1st. *Best Means of Preserving the Teeth.* 2d. *Treatment of Exposed Nerves.* 3d. *The Best Means to Correct Irregularities of the Teeth.* 4th. *Mechanical Dentistry.* 5th. *Filling Teeth.* 6th. *Miscellaneous Matters.*

During the discussion of the second subject, an interesting paper from Dr. W. H. Shadoan was read, in which the author gave his method of filling where the nerve was exposed; in which he employs caps of lead, and fills upon it with foil in the form of blocks, by the use of which he arches over the cap, so as to avoid pressure upon the nerve. In the destruction of the nerve, applies metallic arsenic and creosote.

During the session, Dr. G. H. Perine, of New York, offered resolutions expressive of the loss the profession has sustained in the death of Dr. Elisha Townsend, which were unanimously adopted.

Among the miscellaneous business was the discussion of a "Fee Bill," which was laid over till the next meeting of the Association, with a favorable recommendation.

The Convention was in session two days, holding morning, afternoon and evening sessions.

The next meeting is to be held on the first Tuesday in January, 1860, at Indianapolis.

After adjournment, by invitation, the members and some friends met at the house of the President, Dr. J. F. Johnston, where an entertainment was prepared and discussed, with those customary concomitants, toasts and responses, all apparently enjoying themselves and having a general good time. J. R. M'C.

*Teeth Incorruptible.*—Here is an item which we came across in a newspaper. It refers to the remains of the killed at the battle of Marston-Moor, in the county of York, England, which took place in 1644. In making excavations in this locality 213 years after the battle, the following was found to be the condition of the bones and teeth:—

"The skulls had preserved their shape, but crumbled away when exposed to the air. One poor fellow's passport to eternity was picked up by the foreman. He says: 'There was a bullet in one skull, which dropped out when the skull fell to pieces; the bones, especially the large ones, did not crumble away, but were very brittle when touched with the spade. The teeth were quite perfect, and many of them taken away by the drainers.' This is true with regard to the teeth which were sound at the time of death, but the carious teeth in many jaws gave unmistakable evidence that toothache was in the ascendant and dental surgery at a discount in those days."

# THE DENTAL NEWS LETTER.

## APRIL, 1859.

*Our profession* is assuming a very pleasing position before the public. Within about a month's time, we have been written to, twice from Cincinnati, once from New Orleans, twice from New York and once from New Hampshire, to recommend to persons, dentists in whom we could place confidence. There was a time when one dentist's opinion was not taken by the public, of another's capabilities; not so now. The intelligent portion of the public have confidence in our profession, and believe that one dentist may be trusted with their teeth, as well as another, if he be properly educated. This is a very cheerful state of things. I am not afraid that one of my patients shall go to another dentist. It is a delightful thing to acknowledge another's merit, but there are still some exceptions to this. We sometimes hear of dentists who cannot, in the whole round of their acquaintance in the profession, recommend another to attend to a patient when they cannot do so themselves; this is a cold, isolated and egotistical selfishness. Our profession will be respected as it gains properly associated strength. We believe that patients and the profession gain a great deal by occasionally changing. We were very much interested in a case which occurred during the past year: we had occasion to refer a patient of ours, for whom we could not operate, (his stay in our city being too short,) to another, Dr. Allport, of Chicago. The patient had one tooth, a second superior bicuspid, which was suffering from a fistulous opening in the gum; of course, the result of an alveolar abscess. The doctor removed the plug, and treated the tooth until it was entirely relieved of the abscess and fistulous opening. We saw the case six months after, and the parts were entirely sound. We have been in the habit of treating cases of this kind when circumstances urged us to it, but not as a regular pactice; we see them every day, but we do not treat them unless they become of especial annoyance to the patient. Would it be good practice to make it a rule to treat all such cases when they present themselves? We would like very much if the Doctor would give his views on the treatment in such cases. The patient above mentioned is a most intelligent gentleman, and meeting with such satisfactory treatment at the hands of a stranger to him before, has given him the highest opinion of our profession. We regard it as the duty of every dentist to take down the name and address of every good dentist, whose operations he has had an opportunity of seeing, in order that he can recommend his own patients to them, who are travelling or moving out of his reach, or strangers whom he cannot attend to. In this way he will secure the confidence and respect of the patients so recommended as well as his professional brethren, and prevent the imposition of quacks upon such patients. Those for whom we cannot operate are always grateful for such recommendations, and it would stimulate the younger portion of the profession to render themselves worthy of such confidence. The combined influence of the profession is a much surer guarantee of a young man's success than his own individual exertion. J. D. W.

*Gold.*—At the suggestion of a friend who is much interested in such matters, and for our own satisfaction, we were induced to attempt an estimate of the amount of gold consumed by the dental profession in this country; and as it may be a matter of interest to our readers, we publish the result.

As may be supposed, much is necessarily left to conjecture, and the best that could be expected would be an approximation to the value. With the aid of all the information we could obtain, and by a careful calculation, we make the amount *two and a half millions of dollars, in the form of gold plate and foil, consumed annually by the dental profession in the United States.* This, we think, is an under-estimate, and is allowing for all that would likely come back to be re-worked.

Now, in view of this statement, is there not some ground for the remark, quoted in our January issue, that "the mines of gold a century hence, will be sought for in the cemeteries of the old cities, where it has been geologically deposited under the industry of dentists!"

M'C.

*The Dental Review—London, January,* 1859—*No.* 1.—American publishers from whom the work may be obtained: New York, 290 Broadway; Philadelphia, Lindsay & Blakiston.

This is a handsome monthly, of sixty-four pages, well filled with instructive matter. It is a continuation of the "Quartery Journal," under a new title, and further differing, in being published monthly. The members of the profession in our country have now an admirable opportunity of procuring, through the American agents, a first class, wide-awake British dental periodical, and one, we have no doubt, that will fully and fairly sustain the interests and greatly assist in the progress of the profession in England, and we trust, therefore, that the opportunity will not be neglected. We refer our readers to the advertisement on cover. M'C.

*Dental College Commencement.*—We had not the pleasure of being present at the Pennsylvania Dental College Commencement, but we learn that it passed off very pleasantly to the students, and highly gratifying to the very large audience in attendance. It must be doubly gratifying to the Faculty to see the increasing interest that the community take in being present on such occasions. It exhibits an increasing interest by the public in the educational interests of our profession. Public sentiment is a kind of weather-vane, that indicates the direction of the current our profession is taking. When we first entered the ranks of the profession, we invariably heard from our patients, when the name of a distinguished dentist was mentioned, "he is a splendid mechanic;" now, under the same circumstances, they remark, "he is a very scientific, or well-educated dentist."

It will be seen, by the Demonstrator's report, the opportunity the student enjoys of seeing as well as performing operations for himself, and many of them of a character that he would not have seen before dental colleges were established, in years of private studies or practice. We see by the report, that there were nine hundred and five fillings inserted, and only five of that number of amalgam. This, in round numbers, is only one in two hundred. If the graduates are as faithful to the instruction and advice of their teachers, as we believe they will be, and they do not increase this ratio of amalgam in their practice, surely no one will have cause to find fault. There has been a much larger class of graduates this than any previous year, and with a continuance of the exertions of the present young and energetic Faculty, we may look confidently for a rapid increase. J. D. W.

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*The Baltimore College of Dental Surgery* held its nineteenth annual commencement, on Tuesday March 1st, 1859, when the following gentlemen received their diplomas:—Joseph William Blandy, Maryland; Nathan Davis, Pennsylvania; William De Hart, Kentucky; Samuel McMaster Field, Virginia; Ervin Floyd, S. Carolina; George Archer Frierson, Louisiana; Alexandre Garnier, Porto Rico; Benjamin Franklin Hoopes, Maryland; Francis Napoleon Kitchell, Alabama; Charles Knower, Missouri; James Samford Lavender, Georgia; Alexander Law, Scotland; John Lowry McGee, Virginia; Albert Phillips, Missouri; Theodore Phillips, Louisiana; Edwin Faust Pierce, Alabama; Samuel Sevier, Alabama; Samuel Green Todd, Maryland; Samuel Young Webb, Alabama; Samuel Welchens, Pennsylvania.

The valedictory address was delivered by Prof. C. A. Harris.

We are unable to give the Demonstrators' reports.

*A New Method of Mounting Teeth.*—We have been shown a piece of mechanical dentistry—a full upper denture of section gum teeth on pure silver base—which the gentleman who made it assures us was got up *without heat or any soldering whatever ;* and he further asserts that gold of any fineness may be used with the same facility as silver.

The teeth used in the process are those designed for vulcanite base, countersunk and long platina pins in the back; but he says any kind of teeth may be used.

The work looks like that termed cheoplasty, as though the metal was cast, every joint and crevice being closed up, thus making a very clean, neat case, and with apparently as much strength as ordinary work.

We are informed that "it requires only about half the labor of ordinary plate work, and is more simple than cheoplasty."

The inventor has submitted the process to several gentlemen in the profession, who will test thoroughly its utility in practical cases, when, if their report be favorable, of which he appears to have no doubt, it will be offered to the profession. M'C.

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*The Employment of Dentists in the Army.*—This proposition, as may be remembered, was brought prominently to the notice of the profession, through the report of the proceedings of the last meeting of the American Dental Convention.

That it may not be lost sight of, we republish the resolutions as passed, with the names of committees appointed, as follows:

"Dr. McKellops offered the following preamble and resolution :

"*Whereas*, Owing to the great inconvenience of the officers and soldiers in procuring competent dentists, when necessarily required, and knowing the difficulty in which they are placed, being stationed at distant posts, where it is absolutely impracticable for a regular practitioner of dentistry to visit them ; therefore,

"*Resolved*, That this Society appoint a committee of five, for the purpose of memorializing Congress on the necessity of appointing dentists to be attached to the regular army, and that we recommend the same to the consideration of the American Dental Convention, and ask their co-operation with us.

"The resolution was adopted, and the following committee appointed : Drs. McKellops, Spalding, Forbes, Branch and Lewis. President Allport added by vote.

"By Dr. McKellops.

"*Resolved*, That the Convention appoint a committee of five, to memorialize Congress, on the necessity of appointing dentists for service in the regular army. The committee to act in concert with that of the 'Western Dental Society.'

"Committee—Dr. James Taylor, Cincinnati, O. ; Dr. George Watt, Xenia, O. ; Dr. Frank Fuller, Portsmouth, N. H. ; Dr. W. H. Atkinson, Cleveland, O. ; Dr. Stone, Lexington, Ky."

The mover of the resolutions, in both the dental Conventions, has "seen some service," and has no doubt been painfully impressed with the sufferings endured by the poor fellows composing our army in Mexico, and if such were the case with an army, composed largely of volunteers, what must it be with the professional soldier, who has but rarely the opportunity, even had he the ability, to employ the services of a dentist.

As to their condition and necessities, take for example the army in Utah, and particularly during their fatiguing and lengthy march through the wilderness, and their exposed encampments on the route, also the other portions of the army scattered along our frontier, their only neighbors the Indians.

We are almost disposed to say, after careful reflection, that the soldier has as much need for a dentist as for a surgeon, and that in the aggregate, he suffers as much or more from diseases of the teeth as from any cause incident to his profession. He certainly has as much use for his teeth as for his limbs, and we are quite sure he does more eating than fighting, and should, therefore, be as well furnished with the needful appliances for the effective performance of the former, as he is for the latter, and as his occupation is a hard one at best, he is deserving and entitled to as many comforts and as much exemption from annoyance and suffering as it is possible to afford him.

For these and other considerations which might be presented, we esteem the matter one of very great importance and cannot but admire the humanity in such a proposition, and wonder that it was never made before.

In this connection, we would refer our readers to some extracts, (which will be found in the *Dental News Letter* for July, 1857,) made from "an Army Medical Circular," issued by the Medical Director General of the British army, calling the attention of the medical staff to the improvements made in dentistry, in which he says:

> "I am of opinion that a considerable gain to the service, besides comfort to individuals, would accrue from a more improved practice in dental surgery than that which has hitherto obtained in military life."

And again, after referring to the nature of these improvements, and their introduction in the army, says, that "if carefully practiced in the service, will exercise, I feel convinced, a not unimportant influence on the efficiency of regiments; will obviate the necessity of having recourse to the forceps in numerous cases, and will add to the comfort and heath of the soldier."

We sincerely trust that the committees which have been appointed, will be enabled, by a vigorous prosecution of the matter before the proper authorities, to bring it to a successful termination. M'C.

*Pennsylvania College of Dental Surgery.*—The annual commencement of this school was held at the Musical Fund Hall, on the evening of March 1, 1859, at which the following named gentlemen received their degrees:—Francisco Rey, Cuba; Andrew J. Watson, Pa.; W. P. Gibson, Vt.; George T. Barker, Pa.; Herrmann Rottenstein, Germany; Edward N. Bailey, Pa.; Abram H. Shirk, Pa.; William R. Quinney, Ala.; David J. Stickney, C. W.; Christian Washburn, Mass.; George B. Snow, N. Y.; S. Atlee Bockius, Pa.; E. W. Robbins, Pa.; Samuel S. Nones, Del.; Jacob Worl, Ala.; Bernard Kloek, Pa.; P. Calais, M. D., Germany; Philip T. Ervin, Pa.; Charles H. Faries, Pa.; William W. Townsend, Pa.; B. W. Gildea, Pa.; Isaac S. Fogg, N. J.; C. L. Simmons, Ala.; James B. Candy, Pa.; William F. Trout, M. D., Pa.

The valedictory address was delivered by Professor J. H. McQuillen. We append the following:

### DEMONSTRATORS' REPORT OF 1858-59.

#### *Operative Department.*

| | |
|---|---|
| Gold Fillings, | 565 |
| Tin Fillings, | 335 |
| Amalgam Fillings, | 5 |
| Treament and Filling of Pulp Cavities, | 91 |
| Superficial Caries Removed, | 11 |
| Extraction of Teeth and Roots, | 3,074 |
| Removal of Salivary Calculi, | 42 |
| Pivot Teeth Inserted, | 18 |
| Treatment of Inflammation of Gums, | 4 |
| " Disease of the Antrum, | 2 |
| " Alveolar Abscess, | 12 |
| " Necrosis of Inf. Maxillary, | 1 |
| " Irregularities, | 12 |
| Total, | 4,172 |

D. H. GOODWILLIE, *Demonstrator.*

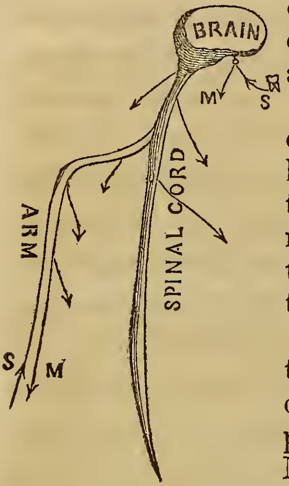
#### *Mechanical Department.*

| | |
|---|---|
| Whole Sets of Teeth, | 18 |
| Upper Sets, | 27 |
| Whole Upper Sets, Block, | 12 |
| Partial " " | 5 |
| Partial Sets of Single Teeth, | 61 |
| Obdurators, | 4 |
| Irregularity Plates, | 4 |
| Whole Number of Teeth Mounted, | 1,141 |

J. J. GRIFFITH, *Demonstrator.*

# ELECTRICITY IN DENTAL SURGERY.

[COMMUNICATED BY HARRY W. LOBB, M.R.C.S., ENG., ETC., ETC.]



"I have much pleasure in forwarding, for publication in the '*Dental Review*,' the accompanying diagram, explanatory of the physiological effects upon the muscular and nervous systems, of the interrupted induced current of electricity as applied in dental surgery.

The current enters the tooth as a sensational one, and passes at once to the conductor in the hand,—the current being interrupted, a sensational one passes in at the hand to the instrument on the tooth—and so on, to and fro, until the tooth is extracted. Now let us see what takes place.

When the current enters at the tooth it passes to the spinal cord, and is reflected to the muscles of the face and jaw, which contract; this is a physiological phenomenon, established by Dr. Marshall Hall—but the current has to pass to the hand, and, in its course through the spinal cord, excites contraction in the muscles of the chest and arm. The current now entering at the hand, gives rise to a sensation referred to the hand, but is reflected to the muscles of the arm, which contract, and passing on to the tooth, causes contraction in the muscles of the face, jaw and neck. These effects have all been beautifully demonstrated by physiologists, as Hall, Matteucci, Dubois, Reymond, &c., as the rusult of the stimulus of the electric current.

We may now easily understand the state of uncertainty under which the brain labors to class the sensations referred to it by the various nerves stimulated by the electric currents: First, there are the nerves of sensation, namely, from the tooth and from the hand; secondly, there are the various muscles which contract by the reflection of the inverse currents, say twenty; and, lastly, there are the muscles which contract by the action of the two direct currents, say forty. As each contraction of a healthy muscle, under the stimulus of electricity, gives rise to a sensation referred to that muscle, we may well understand the number of sensations, and re-sensations referred to the brain at each interruption of the circuit, say twenty times a second. The brain is thus completely bewildered with the number of unaccustomed sensations it is called upon to take cognizance of every twentieth part of a second, and with a skilfull operator for not more than from one to three seconds.

If a patient be questioned immediately after the operation, before the brain has had time to collect, and reason upon the sensations referred to it, he is at a loss what to say—painful or painless. Where did you feel the pain? he does not know. Arm, neck, jaw and tooth? —sensations in all.

I must, however, stop here, as it would be trenching upon the labors of the Committee on Electricity, sitting at the College of Dentists, to enter further upon the practical working of the question.—*London Dental Review.*

Gloucester Terrace, Hyde Park, 18th Dec., 1858.

# Extracts from the Dental Periodicals and from other Publications;

### WITH OCCASIONAL COMMENTS.

BY. J. R. M'C.

*The Oglethorpe Medical and Surgical Journal, published at Savannah, Ga.*—In the December issue of this periodical we notice some editorial comments on "THE TITLE OF DOCTOR," by which we are informed that none but Physicians are entitled to the use of that term, and that Dentists especially must be excluded, as in their case it is an *abuse* of the title.

We shall endeavor to give the substance of the article, and will append some comments as we pass along. At the opening he gives *a* definition of the word (*Doceo*, to teach) and its application by the ancients, viz: to those who were "engaged in the business of *teaching* or *expounding* the Scriptures," to which we add the following definition, given by Webster, as we shall have occasion to refer to it:—a teacher; a doctor of the law; one who has passed all the degrees of a faculty, and is empowered to practice and teach it; as, a doctor in divinity, in physic, in law; or, in modern usage, a person who has received the highest degree in a faculty. The degree of *Doctor* is conferred by universities and colleges as an honorary mark of literary distinction. A man skilled in a profession, etc.

He next goes on to say, that at a later period the term was used "to designate those skilled in the mysteries of the healing art." *This is his sole authority for his claim to the entire monopoly of the term by the medical profession.* On what basis, then, is his claim founded? Simply that they were SO CALLED at that day.

We next come to the specific charge against our profession, in which we are told that "dentists begin to arrogate to themselves and submit to the title of *Doctor* being applied to *them* in social intercourse," etc. And again, "that at the present day, scarcely a dentist is to be found, whether graduated or not, who does not respond with alacrity to the title of *Doctor*, without appearing to be conscious of the borrowed plumage which he so complacently wears."

Our craft is in danger of being set at naught, was said of old, and is suggestive in this connection.

He next claims to "have no especial *penchant* for the ancient name," and goes off into raptures on "the most self-sacrificing and truly philanthropic profession that the world has ever known." Prodigious! Now we think he should have some respect for those whose tongues are *prematurely* dumb—occupants of our cemeteries and grave-yards; and we are quite sure that his professional friends will have abundant occasion to smile at the *transcen*-dental claims here proposed by our author, for the organization of so huge a mutual admiration society.

He then sneers at dentistry, in coupling it with the word "barber," and asserts, that if the dentist had "never studied medicine, he can have no better claim to the appellation of *Doctor*, than he can to that of reverend or that of attorney and counsellor of law." What marvellous ignorance is this. Does he he not know that doctor of divinity and doctor of laws are both distinctive titles, and quite as much honored in intelligent communities, as that of doctor of medicine? And just here lies his difficulty, in not qualifying the term doctor; and we therefore refer him to Webster, as already quoted.

He sports his title, we presume, on the strength of an endorsement received from a college, and his title is *doctor of medicine*—not simply *doctor*, for that has no specific meaning; and the dental profession are, on like grounds, and for precisely similar reasons, entitled to their distinctive title, *doctor of dental surgery.*

We are next informed that he "is entirely opposed to the assumption on their part of a *title* which might place them on the same platform, so far as that *title* is concerned, with the members of the medical profession," and suggests, "that if the *dentists* will not abide by their own name, that the members of the medical profession adopt that of physician." This is very kind of him—very generous—but, we assure him, altogether unnecessary, as we think we have already shown; and the fear of the dentist coming between the wind and his nobility is apparently the only reason for his willingness to make so great a sacrifice.

If we had any hope of convincing the *Doctor* that there was anything in the universe worth knowing—any pursuit or occupation, the honor or usefulness of which is not already incorporated in the profession *par excellence*, the task would be a pleasant one; but, judging from the tenor of his article under consideration, we fear a thankless one, and unproductive of any good, and therefore we will not further disturb his self-complacency or professional pride.

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*The Dental Review, London.*—The first issue of this periodical comes filled with much matter from which we would like to extract. The high tone of the introductory, (editorial,) and the noble purposes and intentions therein set forth as the ruling motives in the publication of this work, are entitled to all praise. The series of "Lectures on the medical history and treatment of diseases of the teeth, and their adjacent structures, by B. W. Richardson, M. D.," delivered before the College of Dentists of England, two of which are reported in full in this journal, are very interesting, and replete with useful knowledge to the dentist. We can only give the summing up of each lecture, but from which much may be gathered.

"To sum up—

"The following are the propositions which I would respectfully submit, as expressing in a few words the relationship which exist between constitutional causes and dental diseases:—

"1. Dental diseases, of whatever kind, have two sources; a simple local source, and a constitutional source.

"2. The diseases of the organs of mastication, arising purely from local causes, are limited in number; including caries, necrosis, inflammation or its upshot, and the ache consequent upon exposure of nerve.

"3. Every form of tooth disease may directly or indirectly origi in constitutional disorder, and some originate in no other way.

"4. In all such cases, the true cause of the disease is external, and the system is merely the medium by which the cause passes, or through which it is carried to the locally diseased structure.

"5. The causes acting on the teeth to produce diseases through the system, are of two kinds—chemical, as by introduction of poison into the body—and physiological, as by perversion of normal acts.

"6. The inorganic poisons which through the system seem mostly to affect the teeth and adjacent parts, are mercury, the alkalies, and, perhaps, the malaria; the organic are the poisons of syphilis and small-pox.

"7. *Mercury* produces caries, suppuration and hemorrhage from the gums; *syphilis*, atrophy and tendency to caries; *small-pox*, suppuration, alveolar exfoliation and dental necrosis, and *malarial poison* intermittent tooth neuralgia.

"8. Amongst the diatheses or dispositions of body affecting the teeth, the strumous, the dyspeptic, the gouty, the rheumatic, the cancerous and the hemorrhagic are the most important.

"9. The *strumous* diathesis, while it favors the development of all diseases of degenerative type, is not *per se*—*i. e.*, like syphilis or small-pox—a constitutional cause of dental disease. *Simple dyspepsia* is not a true constitutional cause. *Gout* is a true constitutional cause, leading both to acute ache and organic mischief; and *rheumatism* is a constitutional cause, giving rise to a specific rheumatic neuralgia of the tooth nerve and to a specific periostitis.

"That there may be other forms of constitutional disorder, arising from external causes, by which dental diseases are originated and intensified, is possible and probable. But modern science, carefully read, yields at present no more than I have inadequately marked out, except one, which has been intentionally omitted.

"The *hemorrhagic diathesis* as a constitutional malady, comes strictly under our present head. But this condition being one of peculiar import, must, as the novelists have it, be considered in a chapter of its own. * * * * * * * *

"For the special benefit of those to whom this lecture is addressed, I would, that its precepts may be left more fully on the mind, condense into a few passages the salient points.

"1. The hemorrhagic diathesis means a disposition to effusion of blood; such effusion being called passive effusion when the blood infiltrates into or through a soft structure as the gum, and active when it is effused direct through an open vessel.

"2. The diathesis is based upon some pre-existent disease, such as scurvy, purpura, or anæmia; or upon a poison, of which mercury is the best representative.

"3. There may be both active and passive hemorrhage without pre-existent diathesis: as from local disease, or local injury in the circulating machinery.

"4. When hemorrhage depends on the hemorrhagic diathesis, the peculiarity of blood is due to modification in the fibrinous constituent including either a deficiency of fibrin, imperfect solution, or excessive solution, to which may be added deficiency of contractile power in the blood-vessels.

"5. When hemorrhage occurs in the absence of the diathesis, it is either from disease of vessel, or from the contractility of a divided vessel being suspended as a result of connexion of the vessel, circumferentially, with an unyielding structure.

"6. The treatment of passive hemorrhage from the dental structures is general in kind, consisting in the removal of the external cause; in the re-invigoration of the body, by the administration of medicines of the styptic or tonic class; or in the elimination of a poison, if poison is the disposing agent.

"7. The treatment of passive hemorrhage from the gums, due to a local cause, as a necrosed tooth, or portion of exfoliated bone, consists simply in removal of the cause.

"Lastly. In active hemorrhage after tooth extraction, the points of practice to be borne in mind are—(*a*) The adoption of a general treatment by the administration of styptic remedies. (*b*) The selection of a good chemical styptic, nitric acid being the best. (*c*) The selection of a good plug. (*d*) The application of a firm and continuous pressure."

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*The Quarterly Journal of Dental Science, London.*—The publication of this Journal, we are informed, ceases with the present (January) issue, and which closes the second volume; but in its place, we are happy to know that we are to have "*The Dental Review,*" a monthly publication, the first number of which we are in receipt of; so the change will be altogether for the better.

We make some extracts from the papers in this journal.

Mr. Thomas Harding, in a communication, condemns the indiscriminate use of "mercurial amalgam" in stopping teeth. After alluding to the effects of mercury upon the bones, and the condition of the mouths of persons who have taken mercurial preparations freely and frequently, says:

"There is a preparation or paste in common use among dentists for stopping the cavities of teeth, known as the mecurial amalgam, composed of six parts of silver and ten parts of mercury. This paste produces such injurious effects upon the teeth, which it is intended to preserve, as well as some other local effects, that it induces me to pen a few observations against its use. I am the more anxious to do so, because it is not only extensively employed by dentists, but is even indiscriminately used by the public for stopping cavities, which cannot but prove injurious. Among the bad effects which have been observed, as resulting from its direct local influence, is extreme brittleness of the teeth, produced by its direct absorption, which at the same time turns them of a black or bluish slate color. No doubt the plugging of the cavity with the amalgam will for a time give relief, and allow of but imperfect use, but in a little while, the patient begins to observe he cannot use the teeth in mastication, there is some tenderness around them, and finally, on going to a dentist, he learns his amalgamized teeth are probably unfit to remain in his mouth. When improperly stopped with this amalgam, it produces sometimes a peculiar eczematous eruption on the face, particularly over the cheeks and the lips; this may, with great propriety, be attributed to the oxidation and absorption of the mercury in the amalgam, which evinces its effects in the immediate neighborhood of the teeth, from being conveyed along the minute lymphatic vessels. The general health is disturbed from the same cause, and there is a disposition to catch cold, and suffer from facial neuralgia. It is, therefore, a local poison which should be avoided, and its pernicious influence is by no means checked from its combination with silver or any other metal. In a paper on the use of amalgams, Mr. Osmond has shown, that the mercury is decomposed by galvanic action, from the contact of the smallest degree of acidity in the mouth. It is well known, that alloys have a greater tendency to oxidize than the single metals, and amalgams possess this in a marked degree, and as the mercury is removed from the amalgam, the surface of the plug assumes a dark color, and the external surface of the cavity is equally so, from the infiltration of the dentine with the black oxide, which, I believe to have taken place. As Mr. Osmond observes, the dentine becomes the positive pole of the battery, and the plug the negative, and as a consequence the dentine is rapidly dissolved by the acid fluids contained between it and the plug, and hence, in my opinion, an explanation of the brittleness of the teeth. In some instances the plug may not shrink, but this will not the less prevent the mercury oxidizing and becoming absorbed by means of the lymphatic vessels of the dentine itself."

In several experiments made by chemical tests with several teeth that had been filled with this amalgam, in addition to the extreme brittleness of the teeth in such cases, "mercury was found to be present in minute quantity."

Here is a case somewhat new, and anything but complimentary:

"*Caution to Dentists and Surgeons.—To the Editor of the Quarterly Journal of Dental Science.*—SIR:—A man of a rather ill-looking cast, but very insinuating in his manners, about five feet ten inches in height, very yellow complexion, dark eyes, whiskers and moustachios, teeth dark, dirty, and uneven, and the left central upper tooth broken off, has for some months honored the profession by making appointments to consult respecting his little girl. Of course the fellow never returns; but contrives to pocket an instrument, a set of teeth, or anything of value.

* * * * *

"The fellow is well dressed, and carries a loose coat or cloak on his arm; says he came from New York, and is returning in a few days; and from his manner, appearance and ingenuity, is supposed to be an American. I am, Sir, your obedient servant, T. PURLAND."

The portrait, which is very boldly drawn, is surely not at all attractive, but what strikes us as the most unpleasant *feature* is "the *supposed*" nationality of the fellow.

At the monthly meeting of the "College of Dentists," held October 5, we have the reading of an interesting paper on Aluminium, by Mr. Harrington, from which we extract:

"In common with many others, I entertained a very high opinion of the properties of aluminium as a basis for artificial teeth, but from its scarcity, and being under an impression that some of our London practitioners would lose no time in testing its applicability for dental purposes, I did not commence experimentalizing upon it till last October, just twelve months ago. I then sent to Messrs. Johnson & Matthew, and procured a small quantity, and having heard of the soldering difficulty, a plan suggested itself to my mind, by means of which, I thought it might be cast in any form, size or thickness, that could be required for the mouth. I tried the experiment, and succeeded in producing a wearable piece, the first time.

Having ascertained by experiment, that muriatic acid dissolved it, but that neither nitric or sulphuric acids, nor melted sulphur affected it in the least, I determined upon trying it myself, and by actual wear, test its capability of resisting the action of the saliva and acids of the mouth upon it. I did so, first with a piece without teeth, and finding it stood, I then made a piece with two teeth, which I am still wearing, and have continued to wear night and day since the middle of last December.

After wearing the piece four months, and finding it underwent no apparent change, and that it was perfectly free from all taste or unpleasantness of any kind, I obtained provisional protection for my plan, and supplied the new metal to several of my patients.

"I will now communicate the results:—In all cases where it can be supplied without springs, that is, as partial pieces or suction plates, it stands well; there is no taste or unpleasantness of any kind from it, and it does not appear to decompose or to be otherwise affected by the action of the saliva of the mouth upon it, in fact; to my mind, in this respect, it leaves nothing to be desired. But in cases where side springs are necessary, the gold springs and spring work must be insulated, or a galvanic action takes place between the two metals—a strong saline taste is produced, and the decomposition of the aluminium the result. It is also necessary to be careful not to use any "wrought" aluminium, either as wire for rivets or any other purpose; for if we do, the wrought metal is rapidly decomposed, leaving the cast metal unaffected. This is a fact I was not at all prepared for, and it has surprised every one with whom I have conversed on the subject; but it is, nevertheless, a fact, and must be borne in mind, and guarded against, in using aluminium for dental purposes."

The process seems to be similar to the method known among us as cheoplasty, by which the plate is cast and the teeth attached to the plate at the same casting.

"The only serious difficulty I have met with," he says, "is in consequence of a galvanic action taking place when aluminium pieces are connected with gold side springs."

From the discussion that ensued after the reading of the paper, we learn that aluminium will oxidize when in a state of fusion, but which could be easily prevented by the process the patentee can impart to those purchasing a license.

That wrought aluminium would decompose in the mouth, while the cast metal was free from that objection, yet no reason could be assigned for this peculiarity.

That the use of the hammer, roller or file, would produce a decomposable surface.

A meeting of the dental profession was held on October 12, to discuss the value of elictricity as an anæsthetic, at which Peter Matthews, Esq., President of the Dental College, in some eloquent remarks, gave a very clear description in a brief review of anæsthetics in general, and electricity in particular, in which he expressed himself as having been somewhat unsuccessful with the latter agent, after which various members added their experience.

Mr. Purland detailed some thirty-one cases of extraction, twenty-eight of which were more or less favorable.

"Mr. Lobb next addressed the meeting.—He said, that though not a dentist, and having no experience in that profession, he wished to address the meeting on some scientific points connected with this very interesting question; whether electricity or galvanism was or was not an anæsthetic. He thought it was a very important one, not only to dentists, but to the world at large. Now galvanism when produced, was in an interrupted current. The small coil patterns that he saw before him were not anæsthetic. There was produced by them a to-and-fro current, a direct and a reverse one, and it could not, therefore, be anæsthetic; because, if the direct current produced anæsthesia, the reverse would not, and *vice versa*. The coils now exhibited would not, therefore, he contended, produce anæsthesia; but that they would produce an effect which might be useful to dentistry, he had no doubt, and principally because the effect would be to remove the mind of the patient from the operation he was about to endure, and thus enable the operator to remove the teeth more readily. (*Hear*, *hear.*) Now the next question was, whether there was any form of galvanism that might be considered as anæsthetic. He thought most decidedly that such was the case. Some of the first philosophers of the Continent had told them so. M. Du Borroment had clearly stated, that galvanism was an anæsthetic; and one author has gone so far as to recommend its use in cases of tetanus. There were two kinds of electricity as applied to physiology, the direct and the inverse currents. We had the direct current passing from the centre to the periphery, and the inverse passing from the periphery to the centre. In the one case, if the skin were touched, the nerves would feel the sensation; but in using galvanism the contrary current must also be applied. The direct current of electricity was stimulant, the reverse was anæsthetic and depressing. (*Hear, hear.*) The simplest operation of electricity was to apply a piece of zinc and a piece of copper joined together by a wire to the skin. If brought into contact with a healthy skin, the zinc will produce an ulcer. If applied to a sore, they had the direct current passing from the zinc through the flesh to the sore, and they found that it would heal up quickly. (*Hear, hear.*) If they passed a current in the opposite direction, contrary effects would be produced. Then came the question, could they produce anæsthesia by means of the electric fluid? He had produced anæsthesia upon his own little finger to a small degree by electricity, passing the inverse current from the upper to the lower part; but in treating neuralgia, the inverse current had a wonderful effect, and he had known cases of neuralgia which had been weeks and months troubling patients, cured in a few seconds. (*Hear, hear.*) But this was not producing anæsthesia upon a healthy nerve. With respect to the usual operations of dentistry, he was very doubtful whether true anæsthesia could be produced by electricity; but if any gentleman would place some teeth at his disposal, (*a laugh*), he should be most happy to try some experiments. With respect to the interrupted current, he had no hesitation in saying, that it was not anæsthetic, it was a stimulant, and would produce, as he had already said, some effects which might be useful in dentistry. Anæsthetic effects ought not to be looked for in the currents produced by batteries, such as those of Smee's, with numerous cells—they produce such an amount of heat as would seem to shrivel or burn up the nerve, and produce, in fact, a cauterization of the part affected; while electricity produced from one cell, would only pass the skin. Such an arrangement as that of Pulvermacher's chain would be more efficient than a large battery of cells. These produced only a small amount of heat, but great intensity. With one of these chains of sixty links, sufficient intensity could be obtained for drawing any tooth—with one of one hundred and twenty links, the intensity would be much too great. With one of these chains he had been enabled to produce such an amount of anæsthesia in his finger, as to enable him to pass a needle through the flesh, to the depth of one-sixteenth of an inch, without feeling pain. (*Hear, hear.*) In conclusion, he expressed a desire to afford every assistance in his power, in throwing light upon the interesting question they were met to discuss. (*Hear, hear.*)

"Mr. Perkins said he was sorry, from the little experience he had

had, not to be able to express any favorable opinion upon the use of electricity as an anæsthetic. His experience proved that some patients objected to the use of elictricity, because they did not understand the thing, and feared that it might do harm. He had removed objections on this ground, by stating that if it did not do good, it certainly could do no harm. He recollected to have heard a female declare, after the removal of a perfectly sound tooth, that she had felt no pain whatever in its extraction. The contraction of the muscles of her face at the time, however, rather belied her statement. (*A laugh.*) Upon more closely questioning her, she repeated her statement, that she had felt no pain. Other persons again have been so composed, that they really did not know much about it; but in the case of some very fast teeth, he had seen a decided amount of pain shown by screaming, and could not, therefore, give a very favorable account of the use of electricity. His own opinion was, that galvanism was not an anæsthetic at all. (*Hear, hear.*) It produced in fact a confusion of ideas on the part of the patient. Teeth-extracting was, he believed, accompanied with a great deal of pain, the galvanic current inflicted pain, not the pain of teeth drawing; but of something else, and a confusion in the mind of the patient was caused by these two different kinds of pain, which prevented him from giving any very clear account of its effects. In the course of his experience, he had known four or five cases in which he had extracted fast teeth, and the patients had said that they felt no pain during the extraction in the usual way with the forceps. If persons could be found to declare that they felt no pain under the ordinary application of the forceps, he could not think that the experience of the persons operated upon under the galvanic current should have too much weight attached to them. It appeared to him that a confusion of ideas was created, a sort of fright was associated with the pain of extraction, and when quickly done, the patient really did not know whether he felt pain or not. (*A laugh.*) He was convinced in his own mind that galvanism was not an anæsthetic. (*Hear, hear.*)

Mr. Weiss considered it of very great importance that they should endeavor to perform operations when accompanied with galvanism, as correctly as possible. It had been generally remarked that a silk glove was a sufficient insulator; now that might be the case in performing one operation only; but as in operations with electricity they were more anxious than usually, and that created a degree of moisture in the hands, the glove would not be under such circumstances so perfect an insulator as could be desired. If a silk glove be kept in one hand for a time, it would soon be found that it was not a perfect insulator. He had performed about fifty cases, but the result had failed to convince him that galvanism was anæsthetic. Once he had occasion to remove two teeth from the mouth of a patient; in the first instance the operation was perfectly successful; no delay took place, he proceeded to the second tooth and in that case found it a failure. The cause of the failure, however, arose from the patient having broken the connection. It might, no doubt, be accounted for by the fact of the novelty in the first operation, while in the second the novelty of the application had ceased. As the application of electricity did not possess any novelty, he did not think it was worthy of the attention of the profession. (*Hear, hear.*)

"Dr. Elliotson then proposed that 'the Council of the College of Dentists be requested to appoint a committee to investigate the value of electricity in dental surgery, and to report thereon to the Council.'"

We have devoted much space to this subject, as we deem it one of very considerable importance.

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*British Journal of Dental Science.*—In the December issue of this journal, we find much prominence given to the subjects of *Electric Anæsthesia* and *Vulcanite Base.* On the first named subject, we notice particularly, an interesting article with carefully prepared tabular statements, showing the result in quite a large number of extractions, by C. Spence Bate, F. L. S., which sum up as follows: forty-four, very successful; thirty, successful; six, unsuccessful. The patients were of all classes and ages, and the teeth and roots of all varieties and in all conditions. He closes the article as follows:

"Being liable to such mismanagement," (that of applying the current of improper strength, either too strong or too weak, and not suited to the temperament or condition of the patient,) "I doubt if electricity will come universally into use for the extraction of teeth, but will be found, in the hands of those who know and understand the power they have to control, an anæsthetic agent second only to chloroform."

The number contains several other articles on the same subject, very much of the same tenor, all more or less favorable to the use of the battery in extractions.

The vulcanite base, which was introduced to the profession in England and France by Dr. C. S. Putnam, of New York, seems to have been received very favorably there, and is highly commended in several communications published in this journal.

A correspondent of the *Journal*, suggests in cases of excessive hemorrhage from extractions, the prompt reinsertion of the stumps into their sockets, after having charged them with finely powdered matico leaf or nitrate of silver, with the addition of a crown of cork and the usual bandages to hold them *in situ.*

In the same journal, for January, we find the subject of Electro-Dentistry largely discussed. One contributor, (Henry Planck,) reviewing much that had been published on this subject and correcting many phrases used, giving his experience thus:

"I commenced the application of the induced current in the extraction of the teeth on the 30th of October, at the Manchester Infirmary, and have since employed it in several hundred cases. In about 15 per cent. of these cases I have met with most satisfactory results. This percentage increases with my experience. The large majority of my patients are evidently fully sensible of pain, but they, almost without exception, express an impression that the pain is mitigated, and a desire to have the agent employed in future operations. I have conducted my experiments with exceeding care, and have adopted every improvement and modification of apparatus which experience suggested, and still cannot obtain nearly so great success as stated by some operators."

He then details three successful cases; but a second extraction in the case of the third patient, although with the same strength of current and applied in the same manner, was unsuccessful.

*Electricity for Toothache.*—Under this caption, J. N. Hearder urges the use of electricity in toothache, as follows:

"During my practice as a medical electrician, I have relieved some hundreds of cases of toothache, some permanently and some temporarily, but in almost all cases relief from pain has been the result. I find from communications which I am constantly receiving from members of the dental profession on the subject of electro-dentistry, that they are often meeting with cases of this kind, so satisfactory, indeed, as not unfrequently to alter the intended course of proceeding and permit the quiet retention of teeth previously doomed by the sufferer to extraction.

"I am anxious to draw attention to these facts, because there are none more qualified than the dental profession to turn them to account; nay, it appears as if the very form of instrument used for extracting the tooth, viz., the forceps, is just the very best form for applying the electricity as a remedial agent. I have usually applied one pole of the machine to the back of the neck,* and the other over the mouth externally in the region of the pain. If the surface of the pole thus applied on the face be not too large, say the size of a sixpence, each tooth may be affected separately by carefully passing it along. Occasionally I have applied it on the gums; but, in experimenting with the forceps, I am inclined to think that the success has been even greater.

"Mr. Spence Bate relates a case in which, in preparing a tooth for filling, he more than once gave the patient pain, but as quickly removed it by the application of electricity. Many persons also who have had their teeth extracted under the action of electricity, have remarked, that pain, before almost intolerable, speedily disappeared under the benumbing action of the electricity, as it was applied for a few seconds previously to the extraction of the tooth, and if that operation had not generally followed before they had time to countermand it, some would have been tempted to postpone it for a future occasion. Be this as it may, electricity is an agent which, in the hands of the judicious dentist, may answer a two-fold purpose, viz., that of relieving pain and saving the tooth, or, where this is impracticable, removing the pain of extraction. Whatever may now be said to the contrary, experience daily proves the efficacy of this latter practice, and the success attained by some of the profession is quite within the reach of all who choose to employ the right means."

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* Holding a handle in the hand will answer quite as well.

At the annual meeting of the Odontological Society, held January 8th, we are gratified to notice "the donation of a photographic portrait (to the Society,) of the late Dr. Townsend, of the United States, presented by Mr. Chas. James Fox."

At the same meeting a committee that had been appointed to draw out a plan of a Dental School, made their report, from which we extract as follows:

"Your committee has felt that, in proposing a course of education for those who may now enter the dental profession, it must also be guided by the two following considerations:

"First, that the curriculum must be such as would be received by the College of Surgeons, should that College form a 'Dental Department;' and

"Next, that it must be such as would be received by an 'Independent Dental Institution,' should it ultimately be found necessary to form such an institution. * * * * * *

"The following is the curriculum of education for the dental pupil recommended by your committee.

"*Lectures and hospital practice to be attended at the existing schools and hospitals.*

"*Courses of Lectures.*—Two on anatomy, with dissections (one being special.) Two on physiology and pathology. One on practice of physic. One on practice of surgery. One on materia medica. One on chemistry. One on practical chemistry.

"*Hospital Attendance.*—Twelve months' surgical practice. Six months' medical practice, with attendance upon clinical lectures.

"*Lectures and hospital practice to be attended at the special Dental School.*

"*Courses of Lectures.*—Two on dental anatomy and physiology (human and comparative.) Two on dental surgery. Two on mechanical dentistry. One on metallurgy.

"*Dental Hospital Attendance.*—Two years' attendance at a recognized dental hospital, or at the dental department of a recognized general hospital.

"Candidates for examination to be required to bring proof of being twenty-one years of age, and of having been engaged at least four years in the acquirement of professional knowledge, and of having devoted a period of not less than three years in acquiring a practical familiarity with the details of mechanical dentistry under the instruction of a recognized practitioner.

"Your committee is of opinion, that to carry out such a curriculum of education efficiently, it is *desirable*, if not absolutely *necessary*, that a Dental Hospital should be established in the metropolis, it being well known that the dental pupil has no opportunity of acquiring a knowledge of the mode of performing the various operations in dentistry at the existing metropolitan hospitals; and your committee begs therefore to throw out for the consideration of the council the following suggestions relative to the establishment of such a hospital:

"1st. That it is necessary to establish a Dental Hospital in the metropolis, to be supported by voluntary contributions; and

"2d. That it is desirable that the organization of such a hospital should be entrusted to a 'special committee' to be selected from the members of the profession at large.

"With these suggestions, your committee begs to lay its report before the council. (Signed)

W. A. Harrison, *Chairman.*

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"*To the Editor of the 'British Journal of Dental Science.'*—Sir:—At the risk of being deemed obtrusive, I venture to add a few additional remarks on the employment of electricity in dental operations. Ample time has now been afforded for the investigation of this subject, and daily experience serves to establish beyond doubt the fact, that with suitable electrical apparatus, and ability to use them, the extraction of teeth may be rendered either absolutely a painless operation, or so nearly so that patients scarcely hesitate to repeat it when required.

The operator who now expresses his disbelief in the efficacy of the application, indicates one of two things, either he does not possess an efficient apparatus, or possessing it, does not know how to use it. I have been not a little amused at the pseudo-scientific speculations of some who have evidently been reasoning upon most incorrect data, and with an entire ignorance of the principles, action and construction of electro-magnetic machines, and when we reflect upon some of the effects which have been detailed as resulting from the indiscriminate employment of certain forms of the electrical apparatus, we cannot be surprised that occasionally the most unsatisfactory results have been obtained; nay, the wonder would have been greater had it been otherwise.

I care not by what term the electrical action is designated, whether anæsthetic or not, nor is it essential at present, for the sake of either operator or patient, that this physiological point should be decided; the patient looks only to the fact—is the operation painless, or is it not? Nevertheless, it is only by attention to results that the most satisfactory mode of applying this agent, and the precise amount of power to be used, can be arrived at.

It is with much deference that I object to the attempt made by a writer of some eminence, in another dental publication, to underrate the value of the electro-magnetic coil apparatus, which acts by giving interrupted shocks, upon the ground that it gives a to-and-fro current. The objector assumes as a premise that if the current in one direction be anæsthetic, then that in the opposite direction cannot be. But suppose the result should not be due to anæsthesia at all, in the true acceptation of the term: what then becomes of the argument? Again, it is objected that in the to-and-fro current, or, as some call it, the make-and-break shock, both the reflex and motor systems are acted upon, and the brain becomes confused by the recognition of reiterated impulses of opposite characters. If this were strictly true, I see no objectionable consequences to be derived from it, any more than from the attempt to recognize one character of sound amidst a confusion of others, or to distinguish one special odor in a mixture of perfumes, or what is still more analogous, an attempt to discover by the touch the external characteristics of any substance, whilst holding in the hand a body in a state of rapid vibration or tremor.

Although it is strictly true that the physiological effects upon any given set of nerves vary with the direction of the current—I mean a continuous voltaic current—yet it must be recollected that in the electro-magnetic coil machine, these two opposing currents, statical in their character, if currents they may be called, bear scarcely any relation to each other in their degrees of force. This of course will depend much upon the construction of the apparatus and the character of the primary coil. With the best apparatus, I have ascertained that the current resulting from the interruption, which is usually the working current, is in relation to the other as about 150 or 100 to 1; that is to say, the current produced by making contact, and which would be looked upon as the reverse current, is only about 1-100th part as strong as that resulting from the break, which would be called the direct or working current. Now, when it is considered that the best effects are produced from the rapid reiteration of exceedingly small impulses, the counteracting influence is scarcely worth taking into account.

I have fitted up apparatus with contrivances for separating the two currents thus produced, and employing either at will, and have obtained higher physiological effects with the break shock, in twenty feet of secondary wire, than with the make shock of 2000 feet of the same wire in the same machine.

The *rationale* is manifest, and the action is the same as in the induction coil, the secondary coil of which gives sparks at three or four inches in length on breaking contact, but developes just current enough to stain iodized paper when the contact is made.

In the latter case the secondary or extra current circulates in the closed good conducting circuit of the primary coil, whilst in the former case the primary coil being interrupted, the secondary current manifests itself in the secondary coil in a degree proportioned to its length. But to return to the effect upon the teeth, I have experimented much upon my own teeth, not, Mr. Editor, in the way of extraction, as they are fortunately all perfect, but with a view to ascertain the capability of appreciating other sensations whilst under the influence of electricity, as well as to determine, if possible, the nature of the action upon which the painless operation depends. Without pretending at all to decide this point, the success of the operation appears due to the production of an extremely rapid but minute vibratory sensation in the nerve of the tooth or the conducting tissues immediately surrounding it, and the more rapid the vibration, the less may be the amount of force of each unit of which these vibrations are composed. Hence it is easy to understand why, with machines having springs which vibrate comparatively slowly, the sensations do not follow each other with sufficient rapidity to produce the benumbing sensation. Indeed, perhaps it is well that they do not, for with such machines the shocks which may be borne tolerably well at the rate at which they occur, would, if increased in rapidity, be perfectly excruciating.

Some operators prefer not to let on the electricity before extracting the tooth, whilst others recommend that the patient should have the current passed through the tooth long enough to become familiarized with the sensation which it produces. Both plans are equally successful in the hands of those who are accustomed to adopt them, and I suspect that the variations in the practice may arise partly out of a small difference in the character of the machine or amount of power employed.

My son had a tooth, which had caused him much pain for several days, extracted under the latter process. He felt the electrical sensation tingling through the tooth, but stated that at the instant of the extraction of the tooth that sensation ceased, and the operation was perfectly successful; he felt the tug, but no pain, and expressed his opinion that if the electricity had been let on only at the moment of extraction, he would not have experienced any appreciable sensation, at least such as might be referrable to pain. It must not be inferred from this that the electrical sensation which preceded the operation was at all painful, although of course by excess of power it might be rendered so. In those cases which I have lately seen detailed, in which allusion has been made to the electrical sensations felt in the arm of the patient, I am of opinion that much more power was used than was necessary. A tooth may be almost perfectly benumbed by an amount of electricity hardly appreciable in the wrist, but this will much depend upon the character of the skin of the patient's hand, whether thick or thin, dry or moist. The application of the forceps to the operator's own lip, as recommended by Mr. Planck in your last number, is a very good plan to ascertain the strength of the shock, although, as you justly remark, it is immaterial of what metal the conductor is composed when the animal fluids are included in the circuit.

Experience, as to the requisite amount of power to be employed, must, as I said before, be the only guide, and even this will fail with inefficient apparatus.

I have the honor to remain, Sir, your obedient servant,

JONATHAN N. HEARDER.

Plymouth, Feb. 4th, 1859. [*Brit. Jour. Dent. Science for Feb.*

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*American Dental Review*, for February, Vol. 2, No. 1.—In this journal we find the report of an interesting discussion, by the "St. Louis Dental Society," on Filling Teeth, which is illustrated by a wood-cut, giving all the teeth in the inferior maxillary, and by which almost every possible variety of cavity is shown and numbered from one to twenty-one. By means of this diagram in the hands of every member, each one participating in the discussion is enabled to make himself the more clearly understood and can speak direct to the subject, being relieved from the necessity of any description of the cavity, its shape or position. The plan, as it strikes us, is a very good one, and besides economising time, relieves the reader of the discussions of any fear of misunderstanding the position of affairs.

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*The Dental Reporter*, Vol. 1, No. 4.—With this issue, we are told, this publication ceases, and that the editor and publisher, Mr. John T. Toland, has become the publisher and proprietor of "*The Dental Register of the West*," and we are further informed that the "*Register*," under the new management, is to be issued monthly; the former editors, Drs. Taft and Watt, still remaining in that capacity.

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*The Dental Enterprise*, for March, is filled as usual, with matter of a practical character, treating at large on the subjects of gold and iron and steel, etc.

## Selections and Abstracts from Medical and other Journals.

BY S. S. WHITE.

"*On the Shedding of the Teeth and Exfoliation of the Alveolar Processes after Eruptive Fevers.* By Dr. JAMES SALTER. (Guy's Hospital Reports, third series, vol. iv. 1858.)—During the past few years Dr. Salter has had under his care, principally among the out-patients at Guy's Hospital, a number of cases in which necrosis and exfoliation of the alveolar processes of the maxillæ, accompanied by shedding of the contained teeth, has been one of the secondary consequences resulting from the attacks of the eruptive fevers—scarlet fever, measles and small-pox. These cases have been so singularly uniform in their origin, course and entire history, that though following different forms of eruptive disease, they would seem to have a generic identity; indeed, so similar have they been, that it would be impossible, from a mere inspection of the patient during the period of exfoliation, to have any idea as to which of the eruptive fevers had preceded the then condition—a circumstance which, while it simplifies the description of the several cases, seems to indicate that the immediate cause at least, whatever it may be, is common to the several forms of eruptive fever after which this condition occurs.

" But though there is so complete a similarity in the cases themselves, the proportion in which they occur, as sequelæ to the previous fevers, differs very considerably. After scarlet fever, he has had some eight or ten cases; after measles, three or four, and after small-pox, only one. These figures, referring as they do to sources of observation, combining private practice with a large population of poor who seek assistance at Guy's Hospital, and this extending over a period of six years, may probably be taken as at least an approximation to an expression of what is the relative frequency with which such consequences succeed the different eruptive fevers respectively.

"These cases are all singularly alike, and thus the narration of one case will convey a good idea of them all. Take for example the following:—About two years since, a poor woman brought her child to me among the out-patients at the hospital, suffering from this tooth-shedding and necrosis of the lower jaw. The child's history was this: She was a remarkably healthy little girl, of five years old; about two months previous she had a mild attack of scarlet fever, which had run its course, and passed off without any untoward symptoms; her recovery was complete, and her health restored to its usual vigor. A few days before the mother applied at the hospital, she had, for the first time, noticed that the child's breath had become offensive, and upon examining her mouth, had discovered appearances for which she now sought advice. The child now looked in remarkably good health, was rosy and robust, and all she complained of was a slight discharge from the edge of the gum on the left side of the lower jaw, at a part corresponding with the temporary molars, and of some slight pain in that region. Upon inspecting the mouth, it presented certain characteristic appearances: both on the inside and outside of the temporary molars, on the left side of the lower jaw, the gum was stripped for the depth of about the eighth of an inch, leaving bare so much of the alveolus, while, from within the edge of the mucous membrane, which was red and tumid, oozed a discharge of pus; and the odor of the mouth was fetid. It was particularly observed that there was no thickening of the jaw, and no effort at the formation of supplemental bone; neither was this necrosis of the bone associated with fistulæ or sinuses; the discharge of pus coming simply from the edge of the gum, where it had peeled from the alveolus. The mother of the child did not associate this condition with the previous attack of scarlatina, and was somewhat surprised when asked as to *which* of the eruptive fevers (naming them) she had recently suffered from.

"It was directed that nothing should be done in this case beyond the occasional washing of the mouth with a dilute solution of trishypochlorite of lime, and that the patient should see me again in a week.

"On presenting herself at the appointed day, the peeling of the gum from the alveolar process was found to have progressed considerably, not laterally, so as to involve bone corresponding to other teeth, but simply stripping more from the bone already partially laid bare. It was now found, too, that the same series of changes had commenced on the other—the right side of the lower jaw, and to exactly the same extent of lateral boundary, though as yet it had made but slight progress. This state of things gradually and uniformly progressed; the left side being in advance of the right—the discharge increasing, and the odor of the mouth becoming more offensive, till about six or eight weeks had elapsed, when the sequestrum on the left side commenced to loosen, and in a few days was readily removed by a pair of dressing forceps, accompanied by the contained teeth. After the sequestrum was removed, it was found that the base of the jaw was still entire, and the integrity of the maxillary arch unbroken; the bone hav ing ulcerated across beneath the loculi, occupied by the forming bicuspids. The now exposed surface exhibited bleeding granulations, which speedily healed. In about a fortnight the same occurrence took place on the opposite side of the jaw, without any variation in the attending circumstances.

"This history may be taken as a typical example, and as illustrating the ordinary course and issue of these cases. Uniform, however, as they are in all essential particulars, they are, nevertheless, subject to considerable variations in degree of severity. Thus, in one case, not only were the corresponding sides of the same jaw attacked, but after the sequestrum and contained teeth had been cast off from the lower jaw on either side, the same occurred in the upper, so that all the eight temporary molars, and all the eight immature bicuspids, with their containing alveoli and loculi, were exfoliated.

"The first evidence of exfoliation has always been apparent within eight or nine weeks after recovery from the eruptive fever, usually within four or five. It has never been preceded by swelling or pain, or accompanied by periosteal abscess; the suppuration always occurring at the part where the gum peels from the alveolus, which appears to be the simple method of exposing the dead bone.

"It has happened more frequently in the lower jaw than the upper, and when in both, first in the lower.

"Which ever jaw has been the subject of the exfoliation, it usually occurs on both sides, either coincidently, or in rapid succession; its tendency is to be symmetrical.

"The severity of the previous attack of fever seems to have no relation to the subsequent exfoliation—a very light attack of eruptive fever may be followed by a considerable exfoliation, or the reverse; sometimes it is associated with other secondary symptoms, more often not; indeed, it has seemed to me to have generally occurred in very healthy children.

"The age at which these exfoliations have occurred is worthy of especial note. It occurs during the time that the most active tooth development is going on in the jaws, and when all those parts are undergoing the most rapid nutritional changes—about five or six years of age. From four to eight years are the extremest limits noticed.

"It is not a little remarkable, that in *every* instance that has come under my observation, the temporary molar or molars, and the corresponding bicuspid or bicuspids, with their containing alveoli or loculi, have been the parts to suffer.

"In no one case has the shedding of teeth been confined to the temporary set; the successional (bicuspids) have always been involved, and shed also.

"What *may be* a coincidence, Dr. Salter has frequently found these cases among the poor; and what, no doubt, *is* a coincidence, the patients have generally been girls.

"The explanation of these cases Dr. Salter considers will be found in a rational interpretation of the three following propositions:—

"1. Certain diseased conditions of teeth are sufficient to produce their own shedding, by the necrosis and exfoliation of their containing alveoli.

"2. In the eruptive fevers, the poison of the disease spends its chief force upon the tegumentary system.

"3. The teeth are modified papillæ—are members of the tegumentary system.

"These propositions are acknowledged truths. By applying them to the cases under consideration, I submit that they explain them; that they solve the difficulty of establishing one similar *immediate* cause as arising from three several *primary* ones, and show why these cases of tooth-shedding and alveolar necrosis, produced by three forms of eruptive fever, may be identical in aspect, identical in course, identical in issue."—*Half-Yearly Abstract.*

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"*Calcareous Salts in the Treatment of Rickets.* By Dr. WM. BUDD, Physician to the Bristol Infirmary. (*British Medical Journal*, June 7, 1857.)—Dr. Wm. Budd states, that he has derived better results, in the treatment of rickets, from the compounds of lime, than from any other remedial means. In cases tending to rickets, too, where children with large heads, tumid bellies, and pasty complexion, whose spines are too weak to support their bodies, who are slow in intellect, and backward in teething, and have reached the age of eighteen months or more, without showing any desire to take to their feet, the beneficial influence of calcareous compounds is equally manifest. In such cases, Dr. Budd gives five or ten grains of phosphate of lime, in chalk mixture, thrice daily, adding a simple chalybeate if anæmia is palpably present. At the end of a fortnight, the improvement of the patient is generally conspicuous. Dr. Budd believes that the deterioration in the teeth of the rising generation is due to the insufficient supply of the inorganic constituents of these organs in the food of children, and suggests that children in cities should be fed, in part, during dentition, on buscuits containing a proportion of salts of lime." —*Ibid.*

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"*On the Reproduction of Bones.* By Dr. TOLAND. (*Charleston Medical Journal and Review*, July, 1858.)—In this paper, Dr. Toland endeavors to show that entire bones and joints may be restored by proper management.

"'In 1853,' says Dr. Toland, 'when I took charge of some wards in the State Marine Hospital, I found in the fourth ward, No. 12, a Mexican who had long been suffering from caries of the inferior maxillary bone. Finding the bone destroyed anteriorly, and the remainder diseased, incisions were made on the inside of the mouth, and the entire submaxillary bone removed. In a few weeks bony matter was deposited, and the motion of the jaw perfect. He left the hospital but little disfigured, and if the teeth had not been lost, the reproduced jaw would have been as perfect as the original. Dr. Reilly was then the resident physician, assisted in the operation, and witnessed the result.

"'I was much gratified to find, in the July number of the *Charleston Medical Journal*, a case reported in the *Moniteur des Hôpitaux*, by Maissonneuve, of a similar character:—'The entire lower jaw was excised for an enormous fibrous tumor developed upon and involving the bone. In extracting the jaw, the periosteum was left *in situ.* A rapid cure was obtained—nearly the entire incision healing by the first intention. So little deformity results, that it requires a practiced eye to detect the absence of this important bone. The movements of the mouth are all preserved; the tongue has recovered all its movements; speech is clear and distinct; swallowing is effected with great facility, and one month after the operation, a dense substance was forming from the periosteum, which was expected in time to form a useful bony mass.'" * * * * —*Ibid.*

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"*Case of Nœvus in the Left Cheek cured by the Injection of Tannic Acid.* By Dr. Quinlan, Surgeon to St. Vincent's Hospital, Dublin. (Dublin *Hospital Gazette*, September 15, 1858.)—*Case.*—Eliza B——, æt. nine months, has a subcutaneous nævus on the left cheek, about midway between the angles of the mouth and jaw. Her mother states that she observed this immediately after birth; it was then almost imperceptible, but has gradually increased, until it is now somewhat larger than a shilling. It can be almost emptied by pressure. The skin covering it is healthy. Two veins of considerable size lead from it.

"Saturday, August 21.—I introduced a cataract-needle into the upper portion of the nævus, and broke up its structure. I then inserted a very fine platinum canula, and, by means of a small platinum screw-action syringe, constructed for this purpose, injected a scruple of solution of tannic acid, of the strength of a drachm of acid to the ounce of distilled water. I repeated the same manœuvre in the two other most prominent parts, until the nævus became well distended. Coagulation quickly ensued, as was shown by the almost stony hardness which the nævus assumed.

"Eight, P. M., same day.—Left side of the face considerably swelled; nævus somewhat inflamed. Ordered the part to be fomented with cloths wrung out of hot water. To take a little hydrarg. c. cretâ.

"August 23d.—The swelling of the face is quite gone down; the nævus appears to be undergoing a kind of chronic inflammation; the epidermis over it is desquamating.

"Friday, September 3d.—The site of the nævus is occupied by a tumor resembling the induration left after a boil. There is no trace of dilated vessels. The two veins before alluded to have almost disappeared.

"September 7th.—The induration appears to be undergoing gradual absorption; the three openings made by the canula are healed up."—*Ibid.*

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"*On some severe forms of disease arising from retention of Decayed Teeth.* By Mr. Clendon, Surgeon-Dentist to the Westminster Hospital. (*British Medical Journal*, June, 1858.)—After describing very graphically the ordinary effects of diseased teeth, Mr. Clendon proceeds to speak of some of the more extraordinary effects—disease of antrum, fungoid tumors of the gums, facial neuralgia, facial paralysis, and spasm in certain forms, &c. These remarks are illustrated by cases, and of these we take one as well worthy of notice.

"*Case 7.—Abscess and Paralysis of the Face.*—R. W——, æt. 34, harness-maker, gave me the following history: 'In January last, (1857,) I felt pain in the ear, which began to discharge; then an abscess formed in front of the ear; this was lanced at the Northern Dispensary, and it continued to discharge freely for a week or more. Having lost the hearing on that side, I went to the Ear Infirmary in Soho Square for two months, without any benefit. Discharge of the abscess through the ear continued until December. I then first began to feel severe pain when I attempted to move the jaw; this was followed by inability to close the eye, or to put out my tongue. In that state I came to this (the Westminster) hospital, in January last, and was admitted under the care of Dr. Reynolds.'

"From the constant pain and tenderness on pressure, Dr. Reynolds, suspecting some local cause of irritation, sent him to me, in order that his mouth might be carefully examined. When I first saw him, there was great difficulty in opening his mouth; severe pain in the condyle when he attempted to move the lower jaw, and on pressure being made in that direction; he was unable to close the eye-lids, to contract the orbicular muscle of the eye, to inflate the cheek, or to protude the tongue beyond the front teeth, gasping when he endeavored to do it. On attempting to whistle, the mouth and nostrils were drawn to the opposite side; the external meatus of the ear was so contracted, that a fine probe only would pass; and through the orifice, on pressure being made on the cheek, pus oozed out. He had no toothache, nor decayed tooth that he knew of; but I found the teeth on the affected side, incrusted with tartar, from want of use. This to me is always a suspicious circumstance. He attributed it to pain in the hinge of the jaw in eating, and to his inability to remove the food from the cheek, owing to the paralysis of the muscles. On passing a curved instrument under the gum between two molar teeth, he felt some pain in one tooth, and, repeating the experiment with the same result, I determined to remove it. There was a cavity in it, quite out of sight, and almost out of reach, through which, I have no doubt, air had from the first freely passed, and given rise to all the mischief. On washing out the mouth, he at once expressed a sense of relief; found he could open his mouth easily; and to the surprise of all present, he could protrude his tongue to the full extent without any apparent effort, and also partially close the eye. The relief might be described as instantaneous. The inability to contract the muscles of the mouth, to inflate both cheeks, and raise the angle of the mouth, still continues; and, although it is asserted that in the severest lesions the nerves do not slough, I nevertheless expect some branches of the portio dura have been destroyed in the long-continued abscess, and that loss of power in some of the muscles, as well as of hearing, on that side, are permanent and irremediable.

The paper concludes with the following practical remarks:—

"'Now, in all these cases, whatever the symptoms, and whether the pain be severe, mitigated or altogether absent, there is throughout but one indication—namely, an effort of nature to get rid of the offending body, which we, if we would endeavor wisely to assist and second, instead of to counteract her, ought at once to seek out and remove.

"'But here is the difficulty. The patient has a dread of the operation, and will run all risks, submit to any course of treatment, or any amount of suffering, rather than undergo it. An old lady of seventy once told me that, from her earliest recollection down to the period when the last remaining tooth had worked its own way out, she had seldom been free from pain for a month together; and yet she could never summon courage to submit to the operation of extraction. In her own emphatic words, 'she felt she must die first.' But in severe cases, where there is great tenderness or pain, or where the operation would be more than usually painful and difficult to perform, chloroform will deprive the patient of all excuse, and prove a great blessing. It allows the practitioner to open and examine the mouth carefully, perhaps for the first time, and then, at his leisure, to seek for and remove all that he deems necessary. It is true that, owing to some few casualties, which from the first I anticipated, some persons have as much dread of chloroform as of the operation itself; but my experience in some 3000 cases, taken indiscriminately, and extending over a period of more than ten years, satisfies me that, although, like all powerful agents, it is dangerous if misused, it can always be given with safety if administered with proper care. I can truly aver that, until the other day, when, in a case of protracted operation at the shoulder-joint, much blood being lost, syncope came on while the patient was fully under the influence of the chloroform, but which was detected and counteracted on the instant, I have not had one case which, during its administration or subsequently, ever gave me a moment's uneasiness.

"'Often, however, there is another difficulty; and that is on the part of the practitioner. Perhaps he examines the mouth, and ascertains the cause of the pain to be the root of a tooth broken off and buried deeply in the gum, or he finds a number of roots clustered together, presenting no tangible surface for the grasp of an instrument, and difficult to reach, even with an elevator. He sees they ought to be removed, but shrinks from the task; to use a familiar phrase, 'he does not like the looks of them;' and therefore recommends some palliative mode of treatment, and patience. In point of fact, from not feeling quite equal to the emergency, or wanting confidence in the use of the instrument, he is reluctantly compelled to leave his patient to an indefinite period of suffering, and perhaps to some of the evil results I have already pointed out. This abnegation of his legitimate functions, arising purely from want of confidence in himself, has notoriously had the effect of driving this department of surgery into the hands of unqualified and often uneducated practitioners, styling themselves *surgeon*-dentists, and affecting to consider the mouth as their own legitimate domain, to which the surgeon has no claim. But, whatever the cause, the result is the same; for now the old story is repeated; the cheek swells, pus forms and there is either a circumscribed or diffused abscess. This is poulticed, to promote absorption, or to assist resolution, as the case may be. Now, I cannot too forcibly insist that fomenting the cheek under such circumstances is the most erroneous step of all; for, should the abscess point outwardly, there will be a sinus from which pus may continue to flow, perhaps for a year or more, as long as there is any root or carious bone to exfoliate, leaving, when healed, a deep pit or cicatrix in the cheek, which disfigures the patient for life. This is not a pleasant alternative for a man, but a very serious drawback to a woman, in the preservation of whose good looks we all feel a natural interest. The tooth should be removed, when the pus will immediately flow through the aperture made; or, failing that, hot water, or hot bread and water fomentations, should be used *in* the mouth; and, as soon as possible, the abscess, however deeply seated, should be opened freely through the mucous membrane, and the pus allowed to escape *into the mouth.*

"'In conclusion, I think no one will deny that it should be a part of a medical man's education to know how to deal with such cases; and I trust that all you who have kindly gone with me through these observations will have felt their interest and importance; and, seeing how much suffering and mischief may spring from so small a cause as a diseased tooth, you will sympathize in my earnest wish to obtain the diffusion of more enlightened views on this much neglected, and therefore little understood, department of surgery. Every day confirms my experience of its necessity, and strengthens my desire to see it accomplished. Many complaints that come under the notice of the practitioner as diseases of the body, are, in reality, diseases of the teeth. It is clearly impossible to treat the body as a whole, if we are ignorant of its parts; and I will venture to say there is no part much more widely or universally affecting the general system than that of the teeth."—*Ibid.*

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"*Three cases in which the Superior Maxillary Nerve was divided behind the Ganglion of Meckel, without injury to the nutrition of the Face.* By Dr. CARNOCHAN. (*American Journal of Medical Science*, January, 1858, and *Journ. de Physiologie*, April, 1858.)—The result of three brilliant operations upon the upper jaw, is interesting to physiologists, in that it shows that the wound can cicatrize, and the nutrition of the parts to which the superior maxillary nerve is distributed go on healthily, after the trunk of this nerve has been divided behind the ganglion of Meckel. The result, indeed, is decisive against the opinion of those who attribute to this nerve, as well as to the other branches of the trigeminal, an essential office in carrying on the nutrition of the face."—*Ibid.*

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"*The Salivary Glands.*—The saliva appears to possess *three* most important properties: firstly, it destroys vitality in all animal and vegetable matter; secondly, it loosens the tissues, thereby preparing them to receive the saliva itself, and ultimately to admit the gastric juice; and, thirdly, it mechanically softens and dilutes hard or dry food. When a cow fills her paunch with grass, she places there a large amount of living vegetable material; lying in that organ, or transferring it to the second stomach, no way affects its vitality; but when thrown back into the mouth, and it comes in contact with the saliva, then it instantly dies, and becomes materially altered in appearance. Examine the contents of the first three stomachs of a cow, or a sheep; in the two first the food is evidently living grass, but in the third it has the appearance of a thoroughly well-boiled vegetable—more nearly allied in color and appearance to spinach, and, as yet, it has only come in contact with the saliva, which must be held responsible for its changed condition. Arrest a caterpillar in the act of eating a leaf of a cabbage; kill it instantly, open its crop, and examine the leaf you saw it consume but a minute before; it will have lost its bright green color, and be reduced, in every respect, to the appearance of the grass in the third stomach of the cow. As it cannot have come in contact with any other material than the salivary secretion, it is surely justifiable to attribute its altered appearance to the action of that fluid. When a man eats raw, ripe fruits, he eats living vegetables, and if he put them into his stomach in that state, there they will remain, for no stomach has the power to destroy the vitality of anything, as, if it had, assuredly it would destroy and digest itself, a contingency that always happens in death. Nothing is more common, at post-mortem examinations, than to find that a portion of the stomach has actually thus acted upon itself.

To show the universality of this particular chemical property of destroying life, let us see what takes place among the lower animals. Bulk for bulk, weight for weight, can anything exceed the pain of a mosquito bite, to say nothing of the long continued after consequences?

"What gives rise to this extreme suffering? Surely it cannot be the insertion of its tubular sheath and tiny jaws, because if the flesh was stabbed at the same time with a dozen large stocking needles, the pain would not be nearly so great, and the wound would sooner heal. When a spider bites a fly, why does the insect die instantly, and its body swell up prodigiously? If a rattlesnake, or other, so-called, *poisonous serpent* bite a man, why is the wound almost universally fatal? If a dog, not rabid, bite a man, or if a cow, horse, hog, raccoon, fox, (and many other animals,) do the same thing, or if *one man bite another*, why, in any or all these circumstances, should the bitten person be liable to hydrophobia? To these questions, which might be greatly extended, there is but one answer, namely, that the person bitten has been in every instance inoculated with the saliva of the other animal, and that one of its chief properties is *to destroy life.* To them and to us it is a natural secretion, and so harmless is it, under some circumstances, that a man may drink any quantity of the poison (saliva) *of a rattlesnake*, and it will have none other effect than to help him to digest his food! But if inoculated into the circulation of the blood, it becomes a virulent, a fatal poison. Who can doubt that if a mosquito were as large as a good sized dog, its saliva would be as immediately and certainly fatal as the bite of a rattlesnake? The pain that we share with domestic and other animals, from the bite of parasitic insects, is solely due to this cause—inoculation by their saliva. The division of the salivary glands among the reptiles would appear to throw some light on the functions of each, or certainly some of them; thus, the *poisonous* reptiles possess only *parotid glands*, the secretion of which descends by the channels of the fangs of the upper jaw; the use they make of them would seem to establish the function and properties of these particular glands. The boa constrictor (*Pithon Tigris*) has no parotid glands, neither can he destroy his prey by a bite, but he entwines his body around his victim, and kills him as a bear would, by an embrace. But what is now to be done? he has no grinding teeth to enable him to insalivate the food and loosen the tissues, to partially decomposing the body of the goat he has killed, and so prepare it for the action of the stomach; in other words, how can he perform the important function of insalivating it?

"He does it in this way; *he licks it all over*, and wherever the tongue, covered with saliva, touches it, the flesh becomes almost rotten under its influence. Now, as it is well known that persons have been bitten by a rabid dog and escaped hydrophobia, while other persons have been bitten by sound and healthy dogs and yet this fearful disease has supervened, how is this to be explained unless we admit the differing chemical property of the salivary glands respectively?

"If the teachings of the rattlesnake and the boa constrictor have any practical value, it would appear that the parotid glands *alone possess the power of destroying life*, and that the secretion of the other glands can only be employed upon already dead matter, to effect its speedy decomposition. If this theory be true, it is very easy to explain the bites and their consequences of the two dogs; in the case of the *rabid dog*, whose bite proved innocent, the saliva of inoculatiom may have come only *from the submaxillary* and *sublingual glands*, and consequently it was harmless; whereas, in the case of the *sound dog*, the saliva came from the *parotid glands*, and was therefore fatal. This view is sustained by the following considerations: The ducts of the parotid glands are situated, as we have seen, in immediate proximity to the molar teeth, and the secretion is only evolved by their action; the probability is that the incisor teeth, used in biting, and the interior of the mouth, are usually lubricated by the secretion of one or both of the other pairs of glands, while the parotid glands are reserved for mastication alone.—*Goadby's Animal and Vegetable Physiology*."—*Annual of Scientific Discovery.*

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"*Heating by Gas and Sand.*—Some interesting experiments have recently been made in Albany, by Mr. Calvin Pepper and others, to test the value of sand as a heating medium, especially for railroad cars. The heat is obtained in the first instance by diffusing the gas through sand. If the gas be directed into the body of the sand, it will instantly diffuse itself through the entire mass, and rising to the surface, may, with perfect safety, be instantly set on fire with a match, the flame covering the whole surface of the sand with a pure flame without smoke, no matter how large the extent of the flame, and with perfect and complete combustion. The heat is almost instantaneously diffused through the entire mass of sand, heating it equally throughout, and requiring but one minute of time to heat the sand to such intense temperature that it will retain its heat for hours after the gas is shut off and the light extinguished.—*Ibid.*

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"*A New Cement.*—Mr. Edmund Davy prepares a new cement, which is well spoken of, by melting in an iron vessel equal parts of common pitch and gutta-percha. It is kept either liquid under water, or solid to be melted when wanted. It is not attacked by water, and adheres firmly to wood, stone, glass, porcelain, ivory, leather, parchment paper, feathers, wool, cotton, hemp, and linen fabrics, and even to varnish.—*Cosmos*, vol. xii., p. 41."—*Ibid.*

*Local Application of Chloroform.*—" *L'Art Dentaire* for October contains a figure and description of the *souffle*, by M. Mathiew, for the application of the vapor of chloroform in a local manner. It purports to alleviate odontalgia almost instantly, and removes sensation from the parts during the removal of the tooth by the forceps. We cannot speak of the instrument in a practical point of view, but recommend it to the notice of our dental friends."—*Pacific Medical and Surgical Journal.*

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" *Dental Anæsthetic.*—Tincture of aconite, one ounce; chloroform, one ounce; alcohol, one ounce; morphine, six grains. Mix.—To prevent the pain of extraction, and destroy sensibility in the gums by local application. Moisten two pledgets of cotton with the liquid, and apply to the gums, for a minute or two, over the tooth to be extracted.—*Dr. Tefft.*"—*Journal of Materia Medica.*

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" *Electric Anæsthesia.*—The value of this in removing sensation during operations has been put to the test in Paris by MM. Velpeau, Robert and Nélaton, and found to be very small. 'There must,' says M. Velpeau, 'be some difference between French and American teeth.' But as in America and in England, so in France, dentists have been found who declare from their own experience in favor of the practice. It would appear, however, that those who thus praise the electrical induction are rather oblivious or ignorant of physiological induction. 'Rightly or wrongly,' says M. Velpeau, 'dentists have, from time immemorial, had the credit of a tendency to exaggeration; but now-a-days dentists are all doctors, and no doubt things are changed in this respect.—*Med. Times and Gaz.*, Nov. 6, 1858."—*Medical News.*

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" *Electro Chemical Anæsthesia.*—Some interesting and important experiments have been commenced by Dr. B. W. Richardson, the author of the Astley Cooper Prize Essay, 'On the Coagulation of the Blood,' on the possibility of producing electro-chemical anæsthesia. A sponge, impregnated with chloroform or tincture of aconite, is applied in conjunction with the positive pole of the battery, and a current being passed through the limb, it is found that the anæsthetic influence of the agent employed may be brought to bear in this way upon the deeper tissues, and profound anæsthesia produced. A public demonstration of this method was given by Dr. Richardson, on Wednesday last, at the Grosvenor place School of Medicine, and the results were satisfactory as indicating the production of deep-seated anæsthesia; but the time occupied to effect insensibility was very inconveniently protracted. The further result of these experiments will be watched with interest.—*Lancet*, Feb. 5, 1859."—*Medical News.*

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*Pharyngotomy.*—" The other operation is that of 'pharyngotomy,' for the extraction of a foreign body, by Mr. Cock. The patient had swallowed during sleep a false central incisor tooth, fixed in a gold plate, extending some distance on either side of the tooth. 'The one extremity of the plate terminated in a slender clasp, with two points as sharp as needles, which encircled the bicuspid tooth, while the other extremity formed a single sharp point.'

" 'In three weeks after the operation, the use of the feeding tube was abandoned, and he was enabled to swallow with daily increasing facility. In about another week the external wound had closed, and the recovery might be said to be complete.'

" Nearly three years have now passed since the pharynx was opened; the patient has since married, 'is well and hearty, has acquired stoutness, and, as he affirms, stature. . . . . . His voice has regained a strong, manly tone, but has undergone a decided transformation. In his earlier days he somewhat prided himself as the possessor of a fine tenor voice; he now owns a very respectable bass. How much of this change is owing to natural transition, and how much to the division of the recurrent laryngeal filaments, may be a matter of speculation.' "—*London Lancet.*

*Swallowing of Teeth During Sleep.*—" Dr. Eve gives the report of a case in which a set of three teeth, on a gold suction plate, were swallowed during sleep. The teeth were the two central and the right lateral incisors, the plate measuring one inch and a half in one diameter, and one inch and three-tenths in the other. They lodged in the upper portion of the œsophagus, and after the failure of repeated efforts to remove them by mechanical means, they were finally dislodged by an emetic. On the fifth day, consequent on exposure to cold, inflammation supervened, and the patient died."—*Medical and Surgical Reporter.*

" *Scirrhus of the Sublingual Glands.*—A man, aged 55 years, was brought in who had been suffering for seven or eight months, from a tumor involving the sublingual glands, in which there is occasionally considerable pain. The whole surface involved is not larger than a marble, and no increase or diminution has taken place in it during the past six or eight weeks. It is unaccompanied with tumefaction of the submaxillary glands.

" Affections of the sublingual glands are of rare occurrence, and malignant disease—such as this appears to be—very unfrequent. This tumor feels like scirrhous enlargement of those glands, and has originated and increased to its present size without any assignable cause. There are several decayed teeth, but it is probably unconnected with any such defects. The tumor extends about equally on both sides of the mesian line.

" In removing the mass, branches of the lingual artery must be divided, and their section may give rise to a considerable amount of hemorrhage, so as to require the use of the actual cautery. The tumor being removed by the scalpel, the hemorrhage was checked by the styptic application of the tincture of the perchloride of iron."—*Medical and Surgical Reporter.*

" *Fungous Granulations Simulating Epulis.*—A little girl, aged 8 years, having had the deciduous canine of the left side of the upper jaw extracted, fungous granulations have freely sprouted up, and not being interfered with, have formed a smooth, round, oval tumor, twice the size of a pea, which might be mistaken for an epulis. The growth was shaved off on a level with the gum."—*Ibid.*

"*Necrosis of the Jaw—Operation.*—A little girl, the history of whose case will be found in the report of the University clinic of Wednesday, Oct. 20, 1858, (see *Reporter* for Oct. 29, 1858, p. 85,) was again brought before the class. When before presented the sequestrum was not sufficiently loose to justify operative interference, and antiseptic mouth washes only were therefore employed. At present it was thought that a large sequestrum seen projecting into the mouth was sufficiently loose to justify the attempt to remove it, and it was accordingly drawn away with a pair of forceps, and found to be of some size, being about an inch and a half in length and three-quarters of an inch in breadth. Two of the first set of teeth remained in its upper surface, and it will readily be perceived, therefore, that it represented a considerable part of that side of the jaw.

"A mouth wash of Labaraque's solution f ʒj to f ℥vj of water was directed."—*Ibid.*

"*Removal of a Fibrous Tumor of the Upper Jaw.*—A negro girl presented a firm, florid tumor of the size of an English walnut, which was attached to the gum just above the incisor teeth of the upper jaw. It was not painful, and was probably a fibrous growth, and innocent in its character. Dr. Agnew, who operated upon the case at the request of Dr. Smith, dissected the growth away, and as it was found that several spiculæ of bone projected from the jaw into the body of the tumor, they were removed by bone nippers. A compress of dry lint was then placed over the bleeding surface, to arrest the hemorrage."—*Ibid.*

"*Tumor of the Antrum.—Removal of the Superior Maxillary Bone.*—A young man was brought in with a tumor of the antrum, which depressed its floor, filling up the cavity of the mouth. Morbid growths originating in the cavity of the antrum are very apt to take on a malignant character, especially in young persons. Pain has been experienced for several years, but the tumor was first noticed last July. The teeth are sound, although not free from pain. A sero-purulent discharge exists, with occasional hemorrhage from the nostril. This would have been in larger quantities if the tumor was purely encephaloid, or it might have been mistaken for polypus, and pulled upon by polypus forceps. If it was a degenerated epulis, the treatment would be the same as that we shall adopt. It will be necessary to remove the superior maxillary bone. The anatomy of the parts was then described, as well as the parts through which the surgeon must cut. The incisions must be made with a view to prevent disfigurement of the face. Sometimes it is necessary to remove many bones of the face, and yet it is surprising what slight deformity follows the operation.

"The bone was removed, and the patient presented himself at the succeeding clinic, the wound, throughout its whole extent, having united by the first intention."—*Ibid.*

*Necessity and Value of Principles.* Extract from a lecture by Dr. C. Handfield Jones, F. R. S.—"It has been well said by one of the masters of our profession, that the development of a principle is like setting up a brilliant light in the midst of a large hall, which enables the eye to take in the whole in all its fair proportions; while the investigation of details is like exploring the same hall in all parts by the aid of a taper. The latter process is most necessary; without it there can be no safe ascent to higher ground, no sound induction; but yet it ought always to be conducted, as far as possible, under the guidance of some *informing* (shaping) idea, which may connect and colligate our facts, and enable us at last to arrive at a law or principle. I am much inclined to think, that of late years we have been over-busy in accumulating facts without sufficient reference to principles, or, to use Dr. Whewell's term, collegiting ideas. Blood-globules have been counted, tissues have been scrutinized both healthy and morbid, secretions analysed, symptoms described, and râles defined minutely. Far be it from me to decry this painful labor; it has produced fruit, and will, I doubt not, yet more. But have we not, amid all these particulars, thought too little of the general truths which they contain, and which we ought to strive to educe? I believe strongly that each age has its mission, its more particular work to do; and the mission of our age may be the accumulation of facts, that of a succeeding age their interpretation. But still I would we had more workers after the example of an eminent member of this Society, lately passed away from among us, whose observations and experiments always went straight to a point. I need not say that I allude to Dr. Marshall Hall." * * * * * —*Braith.'s Ret.*

"*Cancer.*—In a great number of tumors there is a natural ebb-tide; at first they grow rapidly, then slowly, then remain stationary, and at last begin to waste, and may even almost disappear; sometimes the whole tumor may slough out. This is favored most of all by a hopeful state of mind of the patient, and is aided by certain hygienic measures; a good nourishing diet, with beer or wine; bark and hydrochloric acid or iron, as a tonic. The best local application is lead, either in the form of plaster or lotion, according to the state of the tumor. Do not waste time with looking after impossible specifics. The tumor is the natural reservoir of the morbid matter; if this reservoir be removed by the knife or caustics, the morbid material is distributed over the whole system, provoking a return of the disease in a more aggravated and incontrollable form." * * —*Braith.'s Ret.*

"*Cancer of the Lip.*—M. Chapel has observed that nine out of ten who had cancer of the lips are males. As most of the patients observed by him were smokers of tobacco, he thinks the use of pipes or cigars, and the *heat* they impart to the lips, a frequent cause of cancroid disease. M. Begin, who was appointed by the Academy to examine the paper of M. Chapel, fully agrees with the author."—*College Journal.—Peninsular and Independent.*

*Late Dentition.*—"For some time past, we have been in the way of observing a very curious fact, and one which enters into the category of those we have already pointed out, viz: the delay in dentition in children who are the issues of consanguineous alliances. Thus we know of children at this moment, three and four years of age, who have as yet no teeth. A young physician of Lyons, a very well-informed person, M. Leopold Ollier, assures us that he has frequently observed this fact in the department where he was born, and where these alliances are common. With this delay in dentition is almost always associated an arrest of development in both body and mind."—*Journal of Insanity.*

"*Neuralgia.*—The passage of an induced current of electricity through a nerve in its normal state, renders it for a time more or less insensible. This physiological fact may be made of the greatest practical utility in cases of neuralgia. To *sciatica* and *tic douloureux*, the application of this form of electricity is particularly applicable. A case of sciatica is related in which great benefit and ultimate cure were derived from the passage of currents of electricity along the course of the sciatic nerve, the positive pole being placed near the tuberosity of the ischium, the negative one near the ankle. This mode of applying electricity is preferable to that by electro-puncture, which is accompanied in many instances by violent pain during the operation, and afterwards by inflammation and suppuration in the tissues punctured.—Dr. J. Althaus.

"In Edinburgh the use of narcotic injections by means of a small glass syringe, with a sharp hollow needle, like the sting of a wasp, has become almost universal; if, in a case of neuralgia, it be introduced at the point where there is most pain on pressure, and a few drops of narcotic fluid be injected, instantaneous relief will often be afforded. In the case of elderly people caution is required, as the injection is apt to take a strong effect.—Dr. A. Wood.

"By the Germans, muriate of ammonia is considered very valuable in cases of neuralgia, especially of the face. It has been lately tried by Dr. Wilks at Guy's Hospital with some benefit. A case is related in which a very bad attack of neuralgia of the face was completely and speedily relieved by this remedy, given in doses of half a drachm every hour in camphor mixture. The patient had had several previous attacks relieved by arsenic and quinine, but, nevertheless, recurring after a short interval. Three months had elapsed at the time of the report since the ammonia was administered, and no relapse had occurred. Mr. H. C. Brenchley.—*Braith.'s Ret.*

"*Toothache.*—For the last thirty years, Mr. Hearder, of Plymouth, has been in the habit of using galvanism for the relief of toothache; those cases yield most easily in which the pain originates in the tooth itself. A metal disc, covered with moistened cloth and connected with the positive pole, is placed on the back of the neck, a similar disc connected with the negative pole being placed either on the tooth itself or gum; the degree of power necessary is very feeble. Most cases are relieved permanently, many for a considerable period, and very few not at all. Of course, in cases of abscess at the root of the tooth, the symptoms, as might be expected, are aggravated.—Mr. J. N. Hearder."—*Braith.'s Ret.*

"*Teeth Retained after Removal of part of the Jaw.*—Mr. Skey brought forward a man before the students in the St. Bartholomew's operating theatre on Saturday last, whose case presented some remarkable features. About four months ago he had been admitted with necrosis of a large portion of the lower jaw. The sequestrum was quite loose, and its extraction was accomplished without the least trouble. It included the whole of the left side from the ramus to the symphysis, and of the right as far as the first molar tooth. The sequestrum had been mounted for the museum. Mr. Skey exhibited it to the class, and it presented the sockets for twelve teeth, *i. e.*, for the whole of those of the left side, and for the incisors, canine and first bicuspid of the right. On the right the necrosis did not appear to have involved quite the whole of the alveolar border, a fact which doubtless explains in part the circumstance to which we are about to allude. Instead of coming away with the bone to which they belonged, the incisors, canine, and first bicuspid of the right side, and even the central incisor of the left, had remained in the gum. The man on the present occasion applied to have these teeth removed, as although they evidently possessed vitality, and were firmly attached to the gum, yet having no bone beneath, they were in his way rather than otherwise. The gums had of course sunk down, and the teeth stood very irregularly. Mr. Skey removed four of them, the fifth (the right first bicuspid) being sufficiently firm to justify its retention. The case excited much attention among the surgeons of the hospital, all of whom agreed with the operator in stating that they had never before witnessed an example of retention of vitality on the part of the teeth after removal of their osseous support. The patient is a pale, unhealthy young man of about 20. The periosteum of the bone had evidently been left behind."—*Med. Times and Gaz.*—*Med. News.*

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"*Asphyxia from Drowning.*—*The Silvester Method.*—This plan of resuscitating the drowned is a simple imitation of natural deep inspiration. It is effected by lifting the ribs and sternum by means of the muscles passing from the shoulder to the chest, by steadily extending the arms up by the side of the patient's head. In this way the cavity of the chest is enlarged, a tendency to a vacuum is produced, and a rush of air immediately takes place into the lungs. Expiration is brought about by compressing the sides of the chest by the patient's arms. The patient must be placed on his back, with the shoulders raised, and the tongue drawn forwards, whilst the arms are used as above directed, as handles to open and close the chest."—*Braith. Ret.*

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"*Chlorate of Potass in Mercurial Salivation.*—As the results of what has been published in France upon the subject, and of the cases that have occurred in his own practice, M. Laborde comes to the following conclusions:—1. The chlorate exerts a real curative influence in mercurial stomatitis. 2. Moreover, it possesses a certain prophylactic or preventive action, permitting the prolonged use of mercury without salivation being induced. 3. In the medium cases of stomatitis, it has not required to be administered beyond four days; but in serious cases eleven days' use of it has been necessary. 4. Its good effects almost always begin to manifest themselves by the second or third day. 5. In cases of medium severity, the dose of 60 to 75 grains per diem has proved sufficient; and increasing this does not seem to exert much influence, except perhaps in very bad cases. 6. It is equally efficacious used as a gargarism; but it seems to be especially adapted in this form for the more purely local accidents, as gurgeval tumefaction, pathological coloration, ulceration, &c.—*Bull. de Thérap.*—*Med. Times and Gaz.*"—*Braith.'s Ret.*

"*Application of Sugar when Lime has entered the Eye.*—The '*Indicateur de Mayence*' in relation to cases of workmen becoming blinded by the action of lime which has entered the eye, recommends as a well approved application in the case of such accidents, a strong solution of sugar, which is to be inserted drop by drop under the eyelids. This application can usually be immediately obtained, and completely prevents the caustic action of the lime.—*Jour. de Chimie Méd.*—*Med. Times and Gaz.*"—*Braith.'s Ret.*

*Patent Claims.*—"*Dentists' Chairs.*—Alex. M. Holmes, Morrisville, New York.—Claim—1st. The foot-rest arranged with the slides, racks, pinions and pawls substantially as described. 2d. The supplemental back attached to links which are fitted in the slot of the back, and actuated by the set-screw, substantially as set forth. 3d. The adjustable head-rest formed of the slide, pinion, plates, arranged relatively to each other and applied to the back, substantially as set forth."—*Jour. Frank. Institute.*

"*Method of Applying Electricity During Extraction of Teeth*; J. S. Simmerman, Glassborough, New Jersey.—Claim—Applying electricity to the gums or teeth, or both, during the operation of extracting teeth, by means of the insulated adjustable spring clip described, or its equivalent, the said clip being connected to one of the poles of an adjustable electro-magnetic machine, or its equivalent."—*Ibid.*

"*Lathe Attachment for Finishing Dental Plates*—Elijah H. Danforth of Jamestown, N. Y.—I claim the combination of the mechanical devices specified, consisting of the piston, *c c*, bed pieces, *a a*, boxes, *b b*, slides, *e e* and *j*, and the crank constructed and operated for dental and other purposes, as described.

"And I also claim the adjustable crank, as it is arranged and attached to the specified parts of this machine, as set forth.—*Scientific American.*

"*Application of Electricity in Dental Operations*—Wm. G. A. Bonwill, of Dover, Del.—I do not claim the application of electricity to dental purposes, as this is shown in the patent of J. B. Francis.

"But I claim in the application of electricity to dental purposes, the mode described of extracting or extirpating the dental pulp or internal nerve of teeth, to wit, by the application of a current of electricity through the instruments made use of in the performance of said operation, directly and constantly to the dental pulp, or internal nerve, during the operation of cutting out or extracting the same, as set forth, and for the purposes described."—*Ibid.*

THE DENTAL NEWS LETTER.

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For the Dental News Letter.

# DENTAL EXOSTOSIS.

### BY J. FOSTER FLAGG, D. D. S.

In presenting a paper in relation to dental exostosis, it will, I think, be proper to introduce the subject, by briefly recurring to the summary manner in which it has been left in obscurity, rather than treated upon by those authors to whom we are so deeply indebted for general instruction in matters appertaining to our speciality.

That this should have been the case, is the more singular when we consider, not only the frequent occurrence of this condition, but the peculiarly distressing affections to which it is almost certain to give rise.

By referring to Hunter's work, edition of 1771, we find not so much as an allusion to this subject.

Fox, whose work on the teeth is probably one of the best books which has been written, even up to the present day, in his edition of 1814, while enumerating dental diseases, says: "the fangs are occasionally enlarged, as in exostosis;" and when treating upon this disease, he remarks that the cause is obscure; that it sometimes exists in perfectly sound teeth; while in other cases, it appears to be the effect of "indolent inflammation," arising from caries; that nothing but extraction of the tooth will afford relief, and that it is very difficult to distinguish it from rheumatic affections of the jaws. As means of diagnose, he gives the sensation of pain, at first slight and interrupted, but gradually becoming continuous and gnawing; and the tenderness during mastication, in consequence of the elongation of the tooth. This much, and the narration of some exceedingly interesting cases, forms the chapter upon exostosis.

Mr. Bell reiterates that which had been already given by Mr. Fox; but I believe that he is the first who states that, reasoning by analogy, it would seem to be the dental periosteum through which is developed this increased deposition of bony substance. He denies that it can exist in teeth otherwise healthy, and states that he has proven, by personal investigation, the presence of "incipient gangrene" in both the teeth which were represented by Mr. Fox as exostosed, though perfectly sound. As additional means of diagnosing this condition, he mentions the similarity between the pain of "tic douloureux" and that produced by exostosed teeth; and also the sensation of pain responsive to a smart blow upon the affected tooth. (?)

Jobson, in his work published in 1834, states decisively that "exostosis of the teeth consists of a preternatural and diseased increase of the substance of their roots, arising from some peculiar action of the vessels of the dental periosteum." He admits that the roots of teeth are sometimes extensively exostosed, while their bodies appear healthy and sound; then, after coinciding in other respects with former authors, he ventures upon the treatment of the disease otherwise than by extraction; stating that in the first stage recourse should be had to local bleeding, for the purpose of subduing the inflammation (?) in the membrane. It will be unnecessary for me to quote any other authority except Mr. Tomes, for, beside that gentleman, none others, in writing upon this disease, have appeared to advance beyond the positions already quoted. We find in the very caption of his article which reads thus:—"Dental Exostosis, or hypertrophy of the cementum of the fang," a sentence which presents to the mind of one who possesses the proper combination of general medical and dental information, not only the location and source of derivation, but the possible and even probable causes of this result; this I hope to demonstrate during the progress of this paper.

Mr. Tomes commences by stating the fact of the existence of exostosis; speaks of its similarity in structure to the original cementum; describes its general appearance and peculiarities of location; states that this increased deposition, though dependent in a majority of instances upon irritation, resulting from caries, is sometimes induced by pivoting operations, chronic gum-boils and proximity to parts affected by diseased action; directs attention to the dull red and thickened condition of the gums about the necks of teeth which are exostosed and have lost their crowns; mentions the gnawing character of the pain, and states that "of the various dental maladies, exostosis is the most frequent source of sympathetic disorders," among which he mentions tic douloureux, pains in the head, neck and shoulders, and even epileptic fits.

Having thus reviewed the opinions which have been and are entertained by some of the most prominent dental writers, I now propose presenting as concise and at the same time as clear a view of this subject of exostosis, as my own investigation and experience will enable me to do. In order the better to attain this end, I shall, in the first place, devote a few lines to the consideration of that condition upon which it depends, then proceed to as minute a description of its various characteristics as seems requisite ; and, finally, offer a classification of the means which, under certain circumstances, would be liable to induce it, confining my remarks entirely to local excitants, without entering at all upon the consideration of constitutional predisposition.

Physiology teaches us the existence, in all organic tissues, of a property termed "irritability," which acts responsive to stimulation, and through the medium of which, functional action may be either deficient, normal or excessive.

The various stimuli which act upon this property are divided into mechanical, chemical and specific or vital irritants. We are shown that this property is dependent upon the presence of arterial blood for its existence, and that while, therefore, a certain increase of blood in a part would tend to increase its irritability, on the other hand, any stimulant acting upon irritability would necessarily cause such additional flow of blood to the part as would be needed for the continuance of this property, while under unusual excitement.

We are also aware, that the function of nutrition is influenced directly by the comparatively large or small amount present of this same arterial blood, and that when a moderately increased tendency of the vital fluid to any given point exists for a protracted period, it induces a textural change which is called "hypertrophy."

When, therefore, we have hypertrophy of any organ, or component part of an organ, we naturally attribute this result to an irritation of that membrane through which it receives its nutriment, and as dental microscopists inform us that the cementum is deposited and nourished by that reflexion denominated the "dental periosteum," we can thus clearly trace the origin of dental exostosis to any cause which may be deemed sufficient to excite, either directly or sympathetically, a slight amount of irritation about the fangs of the teeth. When such cause is present, and has acted for a *sufficient* length of time, (by which term I mean, always months, and frequently years,) there is found, upon examination after extraction, a marked thickening of the periosteum of the fang; and if the disease is in its earlier stage, upon carefully dissecting off this membrane, we find a distinct layer or nodule of coagulable lymph. As the disease progresses, this formation will be found cartilaginous, and later still, osseous.

When it has assumed this last condition, its *appearance* is marked by much variation, sometimes presenting the yellowish-white, chalky consistency of the harder varieties of salivary calculi, and again seemingly more dense and polished than the cementum itself. Its *position* is as varied as its appearance, sometimes being confined to the extremities or one side of one or more fangs, and at others affecting the entire exterior of every fang. In *form*, this growth also differs as widely as in its other characteristics, being frequently but a single wart-like, or rather pimply excrescence, while, sometimes, it perfectly circumscribes the fang, and occasionally, though rarely, gives to the tooth, from its neck entirely to the apex of the root, that puffed and smooth appearance so peculiar to the soft parts in cases of dropsical effusions.

We may find it developed extensively in teeth which, although affected by caries, are yet so slightly affected as to render an attempt at attributing the exostosis to the existence of the caries, nothing less than an absurdity; and we find teeth that have been the victims of decay to the extent of the loss of the entire crown, but very slightly exostosed. I would say, in this connection, that in the present paper I refer only to teeth which *are*, in a greater or less degree, exemplifications of the condition under consideration, and would by no means be supposed to intimate that *decay, as we ordinarily find it*, has any connection with the development of exostosis. So far from this, it is in comparatively very few instances that we have hypertrophy of the cementum accompanying dental caries.

Again; *it is true*, as Mr. Fox stated more than fifty years ago, that teeth are occasionally exostosed, which from all appearances seem entirely unaffected otherwise. I offer this as a fact; and not only have I such specimens in my own cabinet, but I have been told by other gentlemen that they also possess undeniable proof of the correctness of this position.

It has been the opinion of some that the fangs of the incisors and cuspidati were more liable to become exostosed than those of the bicuspids and molars; but an extensive observation in regard to this has forced upon me the conviction that directly the reverse is true. My own collections give a proportion of 24 per cent. to the incisors and cuspidati, leaving, of course, 76 per cent. to the bicuspids and molars.

I would now submit a few remarks in relation to the classification of irritating causes and other means of diagnosing the existence of exostosis.

The first thing we should consider is the *pain* which *is* and *has* *been* felt by the patient. In a great majority of instances the condition which is presented to us has already been, for a longer or shorter space of time, under general treatment at the hands of the medica practitioner, having been denominated "neuralgia." The probability is, that very many remedies have been resorted to without having afforded relief, and knowing, as we do, that neuralgia arising from constitutional causes will generally yield to judicious treatment, our search becomes at once narrowed to the attempt at detecting some local cause of irritation. The educated dentist, from the very study of minutiæ entailed upon those who practice a "specialty," would certainly be the person most likely to detect the cause of trouble; and it is no unusual thing for a long standing "neuralgic difficulty," which has baffled every attempt at alleviation, to be entirely removed by so simple an operation as the treatment of an exposed pulp, or the extraction of one or more exostosed teeth.

We cannot, at this time, enter into the comparative consideration of the pain arising from just that degree of irritation necessary to induce hypertrophy of the cementum, but we must at once suppose cases in which, upon examination, there is no *apparent* sufficient cause for the amount of trouble complained of. As dentists, then, we *suspect* the presence of exostosis, and, as I have but a moment since remarked, the first thing to consider is the *pain.* In order to obtain reliable data in this respect, it will be necessary that the patient should describe peculiarities of sensation, which, in their estimation, are quite trivial, and it is therefore indispensable that they should be aided by questions; but, at this very commencement of research, much tact is requisite, that we may not be misled; *first*, by any anxiety on the part of the patient to respond in such manner as will confirm, *in their minds*, the superiority of our judgment, and our consequent probable ability to treat the case successfully; and *second*, by our own anxiety to compel a confirmation by the patient of our preconceived opinion. When exostosis really exists, the sensations are, at first, a *toothache merely annoying ;* a soreness more perceptible occasionally than usually; gradually increasing until apparent elongation of the tooth is induced, accompanied with a degree of tenderness which precludes the possibility of mastication; a peculiar pricking sensation in the jaw, contiguous to the affected tooth, is of frequent occurrence. At an early stage of the disease pain is felt *at intervals* in the face, cheeks, lips and forehead; as months elapse, these latter disagreeable symptoms become more and more permanent—sharp twinges, increasing in frequency and violence, eventually render *the* *toothache* a secondary consideration, though this finally becomes a constant, grumbling pain.

Opthalmalgia and otalgia are induced in a majority of instances, and resist alike local and constitutional treatment.

Many of these symptoms are much like those dependent upon the gradual exposure of a pulp, and again, even more analogous to those experienced in consequence of the death and disintegration of the pulp as the result of plugging; but it must be remembered that, beside the many slight differences which would enable the thorough dentist to distinguish the one from the other without difficulty, we have the *length of time* which must elapse before exostosis will occasion such serious results.

This length of duration will differ in different individuals, and, for the amount required, we can only rely upon general considerations and our knowledge of the characteristics of the various temperaments, coupled with an ability correctly to decide that appertaining to any given patient. It has been stated that the pain responsive to a smart tap upon the tooth with an instrument, is valuable as a means of diagnosis. This assertion must be taken with much allowance, for, though there is a period when it denotes either *incipient* exostosis or *incipient* periostitis, yet, when exostosis is pronounced, the pain resulting from a blow is *generally* barely sufficient to indicate the diseased tooth, though, it is true, that occasionally it will produce exquisite agony. *Steady pressure*, on the contrary, will almost always cause severe suffering; and it is upon this, much more than upon the smart tap, that we may depend. The pain, then, upon which to rely as evidence of exostosis, is not only wanting in the acuteness of that indicating periostitis, but is augmented by pressure just in proportion to the force applied.

Having become so far satisfied in regard to the nature of the disease, as would be warranted by the length of duration and peculiarities of the pain experienced, the next step should be the attempt to discover that a sufficient exciting cause for the establishment of diseased action, either exists or *has existed at some previous time*, for we know that a morbid condition being once established, is of itself capable of provoking a continuance of the same. With a view to render the detection of such cause more certain, it is well to systematize, so far as may be, those that are known; this we will endeavor to do, commencing with *mechanical irritants*. These are numerous, and claim particular attention, as upon some one of them the exostosis of sound teeth most frequently depends. Of these I would mention the forcible occlusion of the teeth during mastication, particularly when from loss of some of these organs the articulation is partial instead of general; that habit of proving the strength of the teeth by biting hard substances, so often indulged in by those possessing the more durable species of denture; the practice of cracking the hard shells of walnuts, filberts, &c., or the stones of various fruits, as peaches, plums and cherries; the practice of biting off thread, *not an unusual cause of exostosis of the incisors;* the habit of gently knocking the teeth together during the hours devoted to reading, study or meditation; of working teeth, which are slightly loosened, backward and forward, a means of inducing exostosis which we see frequently exemplified in cases where roots seem from their looseness to be easy of extraction, but which, upon the attempt being made, prove exceedingly difficult on account of the increased deposition due to slight irritation; large metallic plugs, especially large fang fillings; the overlapping of fillings in such a manner as to irritate the dental periosteum; and the deposition of tartar under the free edge of the gum. That these, and such like causes may, and often do, sufficiently irritate to exostose, I am thoroughly convinced, for I have seen many cases in which the strictest scrutiny could detect no other than *some one* of these apparently trivial mechanical causes. The second class of irritants which present for consideration, would be those comprised under the head of "*chemical;*" but, after careful examination, I must say, that I have as yet been unable to discover any one which could strictly be viewed as belonging to this division. We have then remaining such causes of irritation as are termed "*vital.*" Desiring not to extend in this connection to that degree which would embrace anything merely theoretical, I shall refrain from noticing any but those most frequently met with, upon which probably nine-tenths of all exostosis, other than that resulting from mechanical causes, depends, and which, therefore, merit attention from their practical importance. *Dental caries* has long been regarded as *the cause, par excellence*, of exostosis, and it probably *is* entitled to rank as that one which causes it the most often; but several points in connection with the existence of cavities of decay, seem to me worthy of notice, as indicating the probability of an increase of cementum; of these, the most important is *position;* the second is *extent*, and the third, the *character* of the decay. The position in which I have almost invariably found caries, when *it* was evidently the only or the principal cause of exostosis, is *under the free edge of the gum*, encroaching upon the fangs, and consequently acting as an immediate irritant to the periosteum, and furthermore, as the result of its progress, affording a depression in which the tissue of the gum becomes embedded and strangulated, thus adding that sympathetic irritation which accrues from the contiguity of an inflamed part. If, therefore, I find the symptoms which have been already laid down as indicative of an exostosed condition, coupled with the presence of a cavity of decay located in the position referred to, I feel warranted in asserting that the extraction of the tooth is the only means by which relief may be obtained. I will not deny that deep-seated, or even superficial caries, affecting only the crown of a tooth, can so excite the surrounding tissues as to increase the deposit of cementum, but I have never yet seen such a case in which far more likely causes could not be discovered. I have, however, seen many instances in which I could attribute the existing exostosis to no other irritation than that arising from the gradual decay and breaking down of the entire crown. Position, then, and extent should be considered relatively, for, while it would seem reasonable that a comparatively *limited* decay encroaching upon tissue possessing so high a degree of vitality as cementum, would produce the diseased condition under discussion, it would also seem, if on the contrary, a structure possessing only so small an amount of vitality as dentine, is involved, that there should then be a compensating amount of extent ere a like result is produced. The *character* of decay upon which exostosis depends, is necessarily that which *progresses slowly*, for time is required for the elimination of osseus tissue, and that time is denied by rapidly destroying caries, the first warning of which is generally through irritation of the pulp, but the evil effects of which we fortunately can combat with every chance of victory. Alveolar abscess arising from death of the pulp, sometimes causes exostosis, but this is generally the case when the fistulous opening is formed through the *side of the fang*, instead of through the foramen at its apex. It will readily be seen why this would be so, for the purulent discharge quickly destroys all life in that portion of periosteum which is bathed by it. When the opening is through the side of the fang, more or less of the membrane retains its vitality, and becomes irritated from the mere contact with dead tissue. Dead fangs remaining in the jaw, are not unfrequently incitants to exostosis of the surrounding living teeth, and should consequently be removed from all parts of any mouth in which this disease has been proven, or, in fact, suspected to exist. Exostosed teeth may of themselves be adequate to extend this affection to remaining organs, and should therefore always be sought for carefully in cases where suffering from this cause has pointed to the liability of its occurrence. It seems to me, that in such instances, the dental practitioner should endeavor to lay aside that exalted appreciation of a tooth, (which in its proper place can scarcely be carried to excess,) and, though it be as painful to him, mentally, as it is to the patient, physically, do his whole duty, extracting everything, which an opinion based upon sound judgment, indicates as causing or liable to cause trouble, thus being instrumental, not only in affording alleviation to present suffering, but in guarding against a recurrence of so severe an infliction.

In regard to the treatment of exostosis, that demands but a few words. Its diagnosis requires careful scrutiny, but that satisfactorily made, should be equivalent to deciding upon *extraction* as the means of obtaining the desired relief from suffering.

For the Dental News Letter.

## ALVEOLAR ABSCESS AND ITS SEQUELÆ.

This disease is of local origin, but favored in its development by certain states and conditions of bodily constitution, which may be regarded as its *predisposing* cause.

The local or *exciting* cause may consist of the death and suppuration of the dental pulp, the irritation of a dead fang, exostosis, mechanical violence, or anything that will irritate and produce inflammation of the alveolo-dental periosteum.

After the periosteum of a tooth becomes the seat of acute inflammation, plastic lymph is thrown out, which developes itself into a sack. As suppuration progresses, this sack becomes filled with pus, which leads to inflammation and swelling of the surrounding parts. This is termed simple *alveolar abscess*.

When the enclosed pus works its way out through the alveolus and the gum, and the opening and discharge become persistent, it is called *alveolar fistula*. If the opening occurs upon the cheek or lower part of the face, it is termed *facial fistula*.

When alveolar abscess becomes established, and assumes the fistulous form, and the patient possesses at the same time a scrofulous or scorbutic diathesis, the success of a permanent cure is very uncertain. In such cases, unless the retention of the tooth be very important, I invariably recommend extraction. But if the temperament of the patient be favorable, I deem a cure practicable. The most successful plan of treatment that I have tried, and the one which I have adopted in my practice, is the following:

First. Remove every particle of decomposed nerve and decay from the root down to the very apex. To be thorough in this, it is highly necessary to have a proper opening in the tooth—drills, hatchets and chisels should be used with no unsparing hand, until the work is fully accomplished.

Secondly. Saturate a silk thread (I prefer this to floss silk) with a mixture of equal parts of tincture of iodine and creosote, and after washing out the enlarged nerve canal, pack it in the root until it is well filled, care being taken to let the end remain out, ortherwise it could not be easily removed.

Thirdly. Lance through the gum down to the pyogenic sack, and insert into the opening a pledget of cotton moistened with the iodine; this article being a powerful discutent, promotes the absorption of the cyst.

The above treatment should be renewed every third day for a week, or longer. Then it is best, after swabbing out the cavity with a solution of tannin and glycerine, to let the tooth rest for a few days. By this time a perceptible change will be observed in the condition of the abscess. If necessary, the treatment must be continued, with alternate intermissions, until the fistulous opening is closed. I have had teeth under treatment for two months before I considered them in a fit condition for the reception of the filling. In order to ensure success, this part of the operation must be thoroughly performed. As no two cases are exactly alike, it is necessary for the operator to exercise his judgment, and make such alterations in the treatment as circumstances require.

When abscess is forming, hot fomentations should be applied to the gums to promote the escape of the matter into the mouth. The practice of applying them to the face, externally, cannot be too severely reprimanded; for they often cause the pus to escape through the cheek or lower part of the face, thereby disfiguring the countenance, and producing an unsightly scar.

At some future time I may consider the subject when produced by oxostosis. J. P. H. BROWN.

Atlanta, Ga.

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[The above is a very interesting paper on the treatment of Alveolar Abscess, and is doubtless as good as any that has yet been practiced, but the *definition* of the disease does not appear to us to be so clear. We would be very happy to hear from the author on the treatment of alveolar abscess arising from exostosis. J. D. W.

For the Dental News Letter.

# ALUMINIUM AS A BASE FOR TEETH.

BY D. VAN DENBURGH, D. D. S.

Messrs. Editors:—The short description of cast aluminium dental plates, in your April No., has induced letters of inquiry from so many dentists, in reference to the character and cost of this metal, where it can be bought, &c.; and so much interest has been exhibited in this new work, that perhaps a more particular description of the metal and its adaptability to dental use, might be of sufficient general interest to claim a little space in your journal. Many seem to have some knowledge of aluminium; to have experimented with it, and to be favorably impressed with its desirableness for dental use, if they could only learn how to use it. But more, apparently, know little of its characteristics, and ask for information, not only in regard to its use for this purpose, but in respect to the metal itself also.

As the test of time more firmly fixes me in a good opinion of it, and I begin to feel certain of its superior value to all other metals in mechanical dentistry: as also, by experience, I have learned to overcome more perfectly the difficulties of its manufacture, and become familiarized with the art of working it, and find it in all respects so well adapted to this purpose, that it meets every requirement, and almost seems to have been especially designed for it. I have the more confidence in recommending it to the dental profession, not simply as a novel and promising experiment, but as a practical and useful improvement.

For more than half a century the earth, alumina, was supposed to have a metallic base; but this was first demonstrated as a fact, by Wohler, a German chemist, about thirty years ago. The metal, however, was never produced in sufficient purity or quantity, to test its qualities, until the last five years. M. Deville, a French chemist, of Paris, was the first to do this, and its exhibition at the "Paris World's Exhibition," was its first introduction to the world as a new metal, claiming attention from the arts and sciences. Since that time, the efforts of many chemists have been directed towards simplifying and cheapening its production; and many experiments in the arts have tested its qualities, and prepared the way for its usefulness. It is already produced, it is said, at an expense of ten dollars per pound; and there is good reason to believe that its present value will be greatly reduced. The metal I have used, was imported and sold by Jones, White & M'Curdy, N. Y., and I have paid them for it, within the last year, a varying price of from twenty, to four and three quarters dollars per ounce.

Aluminium is bluish-white in color, and where broken, presents a rough gray surface; only crystalline when the metal is impure. The *Comptes Rendus*, Feb. 16, 1857, sums up "the remarkable properties which distinguish this metal from all others, as:—

"First—Its extreme lightness.

"Second—Its resistance to the action of acids and sulphuretted compounds, which places it in this respect by the side of gold and platinum.

"Third—The limited extent to which it may be alloyed with other metals—not bearing more than ten per cent. of alloy—or itself entering into combination with other metals, in a greater proportion."

Its specific gravity is little more than two and one-half; making it nearly eight times lighter than gold. At the same time it has greater strength than gold, in the same bulk. But few acids have any effect upon it. It is only soluble in *aqua regia*, and in the mouth is as pure as gold itself.

It exhibits, when in contact with other metals in the mouth, a stronger galvanic action than most others, and should never be worn in contact with other metals; as with fillings, or in any other way. The platina pins in the teeth should always be completely covered and imbedded in the plate, and no solder or other metal than pure aluminium, should be used in mending. It is with difficulty that this metal can be soldered at all; but an alloy of it with silver or tin, or both, not to exceed fifteen per cent. of the latter metals, may be used for this purpose, without a flux. Perhaps some flux may yet be found that will aid this process; but any of those ordinarily used with other metals are useless, or a hindrance. Soldering, however, ought never to be done upon dental plates. This difficulty of soldering so as to give sufficient strength, without galvanic action, is the chief reason why this metal may not be used for dental purposes by swaging, like gold and platinum.

Aluminium melts at a dull red heat, somewhat easier than silver; and is oxidized but little in the process, even at a very high temperature. The chief difficulties to be overcome in casting dental plates of it, are in the preparation of a mould that will bear, without injury, a heat sufficient to prevent the teeth from breaking when in contact with the melted metal; and in conveniently filling the mould with metal, so as to insure a perfect cast. From its lightness and other qualities, this metal is not sufficiently fluid at any temperature, without pressure, to fill a mould with an aperture many times thicker than a case of teeth should be; and some way, therefore, must be devised to force it into the required shape and position. I have made many experiments upon apparatus for this purpose, and my machinery and process are now so far perfected, that I can make these plates as easily and certainly as cheoplastic work. The perfection and simplicity of the casting process, recommend it above any other. A metal suited to it, and at the same time desirable for use in the mouth, has long been wanted. Aluminium supplies this want, I believe, without an objectionable feature.

Oswego, N. Y., June, 1859.

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For the Dental News Letter.

## PLASTIC FILLING.

Messrs. Editors :—You aware that some three years since, I was engaged in a series of experiments with oxy-chloride of zinc. I think I promised you, under certain contingencies, I would furnish for the *News Letter* a history of my experiments. I now proceed to redeem my promise.

I was induced to experiment with zinc and its compounds by meeting with the following extract from "*The Chemist*:"

"This cement is a basic oxy-chloride of zinc; it is formed by moistening oxide of zinc with the liquid chloride of zinc, iron, manganese, nickel or cobalt. These chlorides may be replaced by chlorydic acid. The hardness of the cement is proportionate to the concentration of the chloride and the density of the oxide. Washed residues arising from the manufacture of white zinc are employed, or ordinary white zinc may be calcined to redness. Chloride of zinc, marking from 50 to 60 degrees of Baume's areometer, is used, and in order that the cement may set less quickly, about three per cent. of borax or sal ammoniac is dissolved in the oxide, or else the oxide is calcined after being moistened with water containing a little borax. The mastic or cement obtained by the combination of the above substances may be run into moulds like plaster; it is as hard as marble; cold, moisture, and even boiling water, are without action upon it. It resists 576 degrees Fahrenheit, and even the most powerful acids attack it but very slowly. The new plastic matter is not expensive, and its cost may be still considerably diminished by mixing with the oxide of zinc, metallic, silicious, or calcareous matters, such as iron filings or borings, iron pyrites, blonde, emery, granite, marble, or any hard calcareous matters. Soft matters, as chalk, etc., will not do. The highest and most varied colors may be given to the cement, which makes it suitable for tables and mosaic pavement of great hardness and beauty. It may also be used for making moulded objects of art, such as statues, medallions, bas-reliefs, etc. It is also well suited for ceilings, and several good dentists of Paris have employed it successfully for several years for filling decayed teeth, and even for cementing the parts of a set of teeth."

I commenced operations with the common commercial oxide of zinc, and such liquid chloride of zinc as I could obtain at the druggists, but soon found them utterly worthless. I then tried calcining the oxide, and after a great number of efforts, I succeeded in obtaining an article which, when mixed with a highly concentrated chloride of zinc, (prepared by myself,) would harden, without shrinking, into a very solid mass. By varying the process of calcination, I could, at pleasure, produce an oxide that would harden in from half a minute to an hour or more. While plastic, it could with great ease, be introduced into the cavity of a tooth, and if it had been properly manipulated by the time the plug was smoothed and trimmed, it would be hard enough to be entirely uninjured by the fluids of the mouth. I plugged several teeth with it, and had one of my own filled with it. I could, with different metallic pigments, vary the color till it could not be distinguished from the substance of the tooth filled. After observing the appearance of the plug from day to day, and finding no appreciable change, I was delighted with the result of my experiments and was almost ready to issue circulars to the profession, announcing the discovery of a plastic material perfectly suited to the wants of the dentists, for filling teeth. I also used it for making continuous gums on gold and silver plates, for which it seemed admirably adapted.

I think it is Horace who recommends that young authors should not publish their works until they shall have been written nine years. I remembered that; and, although it was very trying to me to defer reaping my harvest of glory until time should prove the worth or worthlessness of my discovery, I nevertheless did manfully combat my thirst for fame, and waited till I found that my material did not make an enduring highway for that old traveller Time. I found it gradually disappearing under his heel; the durability of it varying very much in different mouths. In some cases, large plugs of it would totally disappear in six months or less. In my own mouth, although the plug is not large and has been in over three years, yet it is not half dissolved; but mine, I believe, is the most favorable case in all my experiments.

Although I regard my efforts to find a plastic, suitable for plugging teeth, as next to a total failure, (for its legitimate use in dentistry is reduced to an exceedingly narrow field,) yet I regard the oxy-chloride of zinc as peculiarly adapted to a great variety of useful purposes in the arts; and as a knowledge of it is extended, it will be more and more highly appreciated. It is to be hoped that the value of a properly prepared article in the art, may soon be more generally known.

A FRIEND TO PROGRESS.

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June 15, 1859.

EDITORS OF NEWS LETTER—*Gentlemen:*—If you have not already made up the matter for the July number of the *News Letter*, will you allow me a little space to add a postscript to my former article?

By a couple of circulars which I have just received, issued, the one by "James Pearson, M. D.," and the other by "Dr. Wm. Michaelis," both of New York City, I perceive others have directed their attention to the subject of finding a plastic adapted to dental uses. I sincerely hope they have been more fortunate than I was, and have used a different material from mine, and have obtained a more permanent plug. But my own experience in plastics would make me quite wary in using, very extensively, any article which has not triumphantly stood the test of time. I hope their material will stand such test. I shall hail with great satisfaction the discovery of a plastic substance suitable for filling teeth.

Presuming that the said Pearson and Michaelis are only anxious to introduce to the profession a thoroughly tested material, I have no doubt that you, being representative men, have been furnished by them with samples of their filling, so as to enable you, to whom we look for light, to test for yourselves its value. I, therefore, send to you a sample of my preparation, so that by a comparison and test you may be able at once to determine whether the materials are chemically identical.

I trust you will be able, in the coming July number of the *News Letter*, to express an opinion as to the value of the "Osteoplastic" and "Odontoplasmia," derived from practical experience.

A FRIEND TO PROGRESS.

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[Some three years ago, in connection with "A Friend to Progress," we tested his preparation of zinc, the result of which, he faithfully reports. We have had no opportunity of experimenting with the preparations of the gentlemen referred to in the above communication; but from the appearance of the materials and the directions given for applying them, we should suppose the ingredients used to be substantially the same as those of our correspondent.] J. R. M'C.

For the Dental News Letter.

# LATERAL PRESSURE OF THE TEETH.

Messrs. Editors :—Perceiving a communication in your last *News Letter*, Vol. 12, No. 3, referring to lateral pressure of the teeth, written by Dr. Cummings, I thought it might not be amiss to suggest a few remarks concerning that point, and perhaps they may be appropriate and useful to the younger members of the dental profession. I have seen several cases of different form and character, similar and perhaps worse than the doctor's. I have seen cases where the wisdom tooth was entirely hid from view, caused by the swelling and inflammation of the jaws, and the patient suffering most indescribable agony. But in no case, unless ordered, have I ever resorted to the sacrifice of a tooth for a remedy, but would employ, as my remedial agent, the separating file, through the aid of which instrument I would generally afford relief. Where the jaws were so much swollen as to prevent me from reaching the division of the second molar and wisdom tooth, I would separate the first and second molar; but generally, after rubbing the jaws briskly for a few minutes with a woolen cloth and some soothing application, I would succeed in forcing open the mouth sufficiently to reach with my file the wisdom tooth. My patients are generally ever ready to adopt any other mode than extraction, and when could a patient experience more agony and torture than during the extraction of a tooth, when inflammation and excessive swelling existed, caused from lateral pressure.

I will relate one case similar to the doctor's, which, according to my note-book, presented itself November 16, 1858. My patient being of good constitution, but of nervous temperament, expressed no inclination to undergo an operation, painful in any shape. He complained of a thrilling pain in the left inferior maxillary. Considerable inflammation and swelling existed at the time he called. On examination, I found a large swelling or lump at the extremities of the roots of wisdom, and extending to the roots of the second molar. He reported that this tumor had been there for some three months or more; at times it would seem very soft, again it would seem very hard, during which time he would suffer greatly, and finally it would break, affording him relief. I found the wisdom tooth was not growing perpendicularly, but the crown was pointed towards the hard palate or towards the central incisors, with its crown lying against the farther side of the second molar; of course, then, the root of the wisdom tooth was situated pretty high on the ramus, some two or more lines above the crown of molar. He readily assented to the separation by filing, which I did, lanced the swelling, and after advising him otherwise, bid him to call on the following day, which he did, reported to have experienced considerable relief, but still a painful sensation would now and then trouble him. I found the swelling considerably abated, the wisdom tooth, nothwithstanding the wide separation, was pressing pretty firmly against its neighbor; I filed it again, also the second and first molar; I lanced the tumor, again syringed with tincture of myrrh, aloes, &c., and bid him call as soon as he might experience any pain. Several weeks elapsed ere I saw the patient again, when he reported to have experienced no farther trouble. I never resort to the extraction of a tooth when there is a bare possibility of preserving it.

I am, as ever,
FRANCIS A. BRENER.

[We do not think that *lateral pressure* of the teeth was the cause of pain in the case referred to by Dr. Cummings, in the April number of the *Dental News Letter*, nor do we think the case referred to above was caused by it. Swelling and pain, where there is not sufficient room for a free eruption of the wisdom tooth, and pain from lateral pressure, we regard as two things. Although pain accompanies the swelling, pain from lateral pressure may exist without swelling.] J. D. W.

For the Dental News Letter.

# SOME PAPERS ON MECHANICAL DENTISTRY.

BY W. CALVERT, D. D. S.

*Preparation of the Mouth.*—The dental practitioner is not unfrequently requested by patients to insert teeth over roots, the crowns of which having decayed and broken off, the fangs are almost enveloped with gum. If, as is often the case, roots of teeth are found firm in their sockets and in apparently a healthy condition, it may be admissible or even advisable to permit their retention, and insert teeth over them in a manner that we shall have occasion hereafter to speak; but, in general, when such applications are made as involve the insertion of teeth upon plates, over roots broken down and in a decidedly unhealthy condition, the practitioner should aver his unwillingness to adopt so dangerous a maxim as that of seeking the right, and yet the wrong pursue.

No opportunity should be allowed to pass unimproved in enlightening the minds of those with whom we have professional intercourse, not only upon this, but indeed upon all matters relative to our profession, that are of mutual interest to patient and practitioner. The evil consequences likely to follow in such cases, (inserting teeth over diseased roots,) should ever be presented in their strongest yet true light. The rough and ragged edges of such roots partially imbedded in the gums, when covered by a plate upon which teeth have been mounted, soon becomes an exciting cause of irritation. The gum intervening between the sharp and roughened surfaces of diseased roots and the plates become more and more lacerated in the act of mastication. Another very serious objection arises from the almost inevitable result of an offensive breath.

It is to be feared, that too often, after the dentist has honorably acquitted himself by presenting the evils and discomforts consequent upon such practice, he will be told, that notwithstanding all this, "I can't have the old stumps extracted;" and furthermore, "I will assume all *responsibility* and bear all consequences," &c. When matters assume this unfavorable termination, it is for the dentist alone to determine which is the most commendable course for *him* to pursue. He must himself judge as to merit or demerit, and whatever may be his conclusion, must ever expect to shoulder his own responsibilities.

Having the mouth in a suitable condition by requisite treatment, removal of teeth, etc., for the reception of dental substitutes; next to be considered is the propriety of having them inserted temporarily, to subserve the individual requirements as well as those of nature, until such time shall have elapsed as may be needful for the processes and maxillary arches to assume such condition as may be suited for permanent ones, or, in other words, until the necessary absorption is complete.

The practice of inserting temporary teeth must of course be determined by a consideration of the advantages or disadvantages derivable from such a course of practice.

It is thought by some, that after the mouth has undergone the requisite preparation, that it should be allowed to remain without any teeth, until full time has elapsed for the completion of the changes, with the view that nature be unrestricted in her operations, and that there should occur no conformation of mouth to plate during the period of mutation. This (*i. e.*, conformation) may or may not take place, but admitting the proposition, even then, I can conceive it to be but a mere nominal thing, inasmuch as the advantages to be derived from having teeth, would be incomparably greater than could possibly result from any such conformation of the mouth or its attendant results.

In the author's opinion, in all cases, it is not only admissible, but advisable and desirable, all things considered, that patients should be furnished with temporary dental substitutes. By this means, the change from loss to supply (comparatively little time intervening) becomes sensibly less, and hence more agreeable; persons soon become accustomed to their use and better acquire the art of managing them, than if they had been unused to any, until the jaws have undergone the changes assigned them by nature. Besides, too, not unfrequently these temporary cures, intended only for a limited period, fulfill in all respects, both the expectations of the wearer and the wants of economy. If temporary teeth are to be inserted, it is advisable to do so, either immediately following the removal of the natural ones, or else allow sufficient time to elapse for at least a partial healing of the parts, which usually is accomplished in from three to four weeks. These temporary ones usually afford to the wearer a far greater degree of comfort, say nothing of other benefits arising from their use, than is ever enjoyed where *none* are inserted. Every one must be fully aware of the extreme tenderness and sensibility existing for some time in the mouth after the removal of a number of teeth or roots, or indeed where but two or three have been extracted. Where no teeth and plate are introduced into the mouth, very severe pain and suffering will frequently be experienced by the contact of hard substances with the tender and very sensitive gums and alveolar borders. Whereas, if the preparatory set is inserted, the irritation will be less, and the pain and injury thus inflicted in the act of mastication, will be materially diminished, owing to the fact of equality of pressure, in a measure at least, over the adjacent parts, if not the entire surface, even though at a single point of contact.

As one of the substances, indeed I might as well say the substance employed for taking impressions of the mouth at the present time, is sulphate of lime, or plaster of Paris.

Its artificial preparation—a white chrystalline powder which consists of a combination of sulphuric acid with any soluble salt of lime—is said to be soluble in 461 to 500 times its weight in water, imparting to the water the quality of hardness with the characteristic selenitic taste. Its constituents are: $C_o.O.S.O_3+H.O.+Ag.$

Native sulphate of lime is found in great abundance in various localities throughout the United States, though originally, as the common name would indicate, it was of French origin. It is prepared for our, as well as for various other uses in the arts, by calcination. The crude gypsum is broken into fragments, after which it is ground, placed into ovens, when it is subjected to the requisite heat, which is said to be from 270 to 300, and some say 400, which deprives it of water of crystallization. The whole (or two equivalents) of water entering into native chemical combination, is doubtless in part only driven off in the process of calcination, else its nature, as might be reasonably inferred, would be essentially changed, the result being anhydrous gypsum, incapable of again combining with water and hardening. It is probable, then, that the change it undergoes in calcining, is the liberation of one equivalent of water, the formation then being $C_o.O.S.O_3+H.O.$

After it has undergone calcination, provided the heat has not been too intense and of too long duration, should it be mixed with water, it re-combines and speedily hardens by a species of crystallization. Chemically appropriating the required equivalent of water essential to the solid, and simultaneously absorbing the excess of water—following the law governing the transition of fluids into solids—expanding in volume with evolution of heat. After plaster has been thus prepared, it is important, in order to maintain its integrity, that it be excluded as much as possible from exposure to the open air, as it will thus deteriorate in quality, by absorbing, by chemical affinity, moisture from the atmosphere.

It is said that calcined gypsum never indurates to the same degree as that of the calcareous kind. It is quite certain,l that that best adapted to the ordinary use of the dentist, is that which sets comparatively quick, and which acquires the greatest solidity, and this it is, doubtless, that contains a small amount of carbonate of lime.

The quality of calcined plaster is extremely variable indeed. While some is extremely fine, and possesses the indispensable properties of setting speedily and acquiring great density, others will be found scarcely to possess either of these essential qualities.

That to be selected for taking impressions of the mouth should be of the finest quality, that is to say, should be finely pulverized as well as possessing the qualities above named.

There is, perhaps, no single manipulation in the whole routine of mechanical dentistry more important, considered in its relative dependencies, than the simple one of taking the impression of the mouth. It is of the highest moment, then, that this preliminary step should be accurately taken, not simply because accuracy should characterise all the doings of the dentist, but as well in consideration of all subsequent manipulations and each progressive step in the construction of dental substitutes and ultimate success thereupon depending. There are cases, special cases, however, of which to obtain *accurate* impressions will be found unattainable. Wherever and whenever, then, it may be found practicable to procure reasonably perfect impressions no effort should be spared, even through repeated trials, in arriving at a successful termination.

The beginning—the starting point—here as well as in all the various as well as varied engagements of science or art, in the allotments of life, in business or in study, cannot be too highly estimated.

In procuring impressions of the under jaw where no teeth are present, the *modus operandi* is almost identical with that given elsewhere under the head of taking impressions of the upper jaw. There exists, however, some difference in the manner of manipulating, and sufficient it may be to justify a passing consideration or in offering some practical suggestions to the inquiring student.

The necessity for having an impression cup of different construction from those used for the upper jaw is apparent to every one. When, then, a cup suitably adapted to the case has been filled with plaster of proper consistency, it should be introduced into the mouth by first passing one extremity of the cup in some distance, then pressing one angle of the mouth horizontally while the opposite angle is held by a finger of the other hand, and thus distending the mouth, the opposite extremity of the cup may be readily passed in. It should then be properly placed over the alveolar ridge, when, with gentle pressure and slight inward and outward motion, it may be brought down properly upon the ridge. As the cup is being pressed down upon the ridge the cheeks should alternately be distended, either with the finger or tongue-holder, so that the loose muscular folds communicating with alveolar borders and cheeks may not be implicated in such a manner as to render the impression imperfect. For like reasons, also, the tongue should, upon the introduction of the cup and plaster into the mouth, be elevated to the palatine arch or roof of the mouth. As, however, pressure is applied to the cup to secure the perfect adaptation of the plaster upon the entire ridge, the tongue should be allowed to assume its natural place in the mouth. It will almost invariably be found, if these precautions are not regarded, the tongue elevated and the cheeks in turn distended, that the posterior parts of the impression particularly will be found imperfect.

By far the greatest difficulty that is ever experienced, however, in taking plaster impressions, is where some of the natural organs remain and are isolated, or where looking horizontally into the mouth the space at the cutting edges is narrower than at the necks of the teeth. It should always be borne in mind in taking these impressions, or any one where one or more of the teeth are included, that the largest diameter of a tooth is usually intermediate between the neck or free margin of the gum and cutting edge. Assuming this, then, as a fact, it is not difficult to discern why it is that such partial impressions are not obtained free from imperfections—cannot be removed from the mouth without some change taking place, however slight, in the parts immediately surrounding the teeth.

Having thus briefly presented some of the obstacles to the use of plaster indiscriminately for taking impressions, it will now be my endeavor to afford some practical indication as to how such difficulties may be most successfully met, so as to arrive at the most desirable results.

In such cases as we have just had reference to, *i. e.*, where natural teeth remain and an impression to be had of plaster, no one, I think, will have failed to see from what has been advanced, that if some precautionary measures are not taken prior to the introduction of the plaster into the mouth, that the setting or hardening of the plaster surrounding completely, as it would, the teeth, there would scarcely be a possibility of its removal without serious difficulty, injury to the impression, and great discomfort to the patient, to say the least of it. I would therefore propose, as prevenient means of obviating the difficulty alluded to, the removal of partial plaster impressions from the mouth—wrapping or encircling such teeth as are thought necessary either with wax, sheet lead or tin. The former of these, however, I greatly prefer. The wax to be made use of should be prepared in ribbon or rope form. Each tooth in succession should be dried with a napkin, and this ribbon or rope of *soft* wax accurately adapted by pressure around the neck of each tooth, enlarging it at least to the full extent of the largest diameter of the tooth, and allowing the wax so to remain until removed with and in the plaster after it has become hard.

The manner of treating plaster impressions subsequent to their removal from the mouth, and preparatory to filling or running them out, is a matter of very considerable moment and well worthy of note. The practice heretofore existing, and to some extent still, of drying, varnishing and oiling them, being no longer considered of equal utility with other means that may be employed for the same purpose, is now being abandoned. A most simple and successful method adopted by me, at the suggestion of ———, is that of soaking them in water. More recently, however, I have employed for the same purpose, and which I consider superior to anything else for the purpose, is soap and water. Immediately upon the removal of the impressions from the mouth, they may be immersed in the fluid, and there allowed to remain for the space of fifteen or twenty minutes; in which time they will have absorbed of the water to the full capacity of the plaster. They may then be rinsed by passing to and fro in the liquid, removed and the rim or wax cloth placed around and the plaster at once filled in.

*Metallic Dies and Counters.*—In order to a proper understanding of them, it is first all important to comprehend fully and fairly the object or end to be attained; then the most simple and effective means to be employed in accomplishing the end proposed.

That here contemplated is the formation of plate gold, platina, silver, etc., in such way, that it will be conformed and accurately adapted to the multiform shapes of mouths that are presented for the skill of the operator in this particular department.

We have here to do with metals, while possessing a very considerable degree of malleability, are, nevertheless, also possessed of very considerable rigidity. Now, in exact ratio with the impress and accuracy of form to be given to the plate and the amount of resistance thereby offered in the article or plate itself, will be the means required and force applied, *i. e.*, that if the plate to receive the impression or form, by swaging between a die and its corresponding counter, be of a rigid and unyielding kind, we but justly conclude that the means, (at least so far as relates to the die alone,) best suited to secure the most favorable termination would be, in the first place, that which undergoes the least possible change in making; being the most unalterable in character after being made, and when subjected to the required action or force in swaging.

An important consideration in the selection of a metal or alloy, as may have already been inferred, is in having such as that, in casting the same, there will be but slight contraction in the cooling process. On this account, as well as including other considerations, I am fully persuaded that zinc, either alone or in combination with tin, (4 of zinc and 1 of tin,) is preferable to any other known metal or alloy, for the purpose of making our metallic dies.

The contraction that takes place in the zinc after it has been poured in the mould, it is true, is very considerable, but at the same time, it must be apparent to almost every observing mind, that all or nearly all of the contraction that occurs is from within, and while a portion of the metal is in a fluid condition, that which occurs from without and after congelation has ensued, is comparatively but trifling and practically a matter of no moment.

For the Dental News Letter.

## HOW SOON SHOULD ARTIFICIAL TEETH BE INSERTED AFTER THE NATURAL ONES ARE EXTRACTED?

Messrs. Editors:—I should be very much pleased to see a few remarks from some of our experienced practitioners, in relation to the length of time they usually wait after extracting teeth before putting up a permanent set. No doubt hundreds would be benefitted thereby.

I usually wait from six to eight months; others of my acquaintance only wait four, and some two months; and one dentist in this State takes the impression for permanent sets whilst the blood is still flowing from sockets from which the teeth have just been extracted. His theory is, that the gums will form to the plate, and fit as well as if he were to wait longer.

I hope that these few remarks may induce a good many to give their experience and notions on the subject.

Yours, truly, A Subscriber.

We will answer, as far as we can, the inquiry of "A Subscriber" on the subject of how long should we wait for the gums to heal and contract, after extracting teeth, before setting a permanent set. This question must always be decided by the practitioner—not the patient—or a fixed time; it depends too much upon the age of the patient, and the condition of the parts when the teeth are extracted, and the rate at which absorption goes on in the parts, to fix any time in any case. Some absorb rapidly, and others slowly, at the same age, according to the temperament of the patient. Some *dry bones* require a long time to absorb, and others, again, have scarcely any to absorb. It may be laid down as a rule, that no mouth is ever in a condition to receive a *permanent* set of teeth until it has worn a *temporary* set for a long time; in fact, there is no such thing as setting a permanent set of teeth, in the strict sense of the word, as the mouth is changing during the whole life-time of the patient, after the teeth have been extracted; not only are the alveolar processes changing, but the relation of the jaws to each other are also changing. There can only be a relative approximation as to the time. The dentist must see his patient from time to time, and decide for himself. Some patients require a new set of teeth every few years, say from five to fifteen, even after wearing what is commonly called a temporary set for from one to three years. To place in the mouth of a patient a set of teeth in a few months, and call them or intend them for a permanent set, or to induce a patient to believe that it can be done to save time or expense, is too absurd to need comment. Patients complain more to us about the deceptions practised upon them in this respect than anything else in our profession. We always place in the mouth of the patient a set of teeth called temporary, sometimes on silver and sometimes on gold, as the patient may desire. As soon as the gums are well enough to be handled, say in from one to six weeks, according to the case, it is necessary, for the preservation of the shape of the face, to place a set of teeth in as soon as the gums will permit of it being done. The lips and cheeks contract upon the buccal cavity so much, when left without teeth too long, as to spoil the features for all time to come. We have cases of this kind coming under our observation constantly. Every patient is anxious to get their teeth as soon as possible, and many associate it with the final cost. But it is the duty of the dentist to set his patient right on this subject, and not operate to suit their immediate want or wish, to the final injury of his own reputation or skill. Young practitioners cannot, of their own experience, be informed on this subject. Those we do not condemn, as their teachers have not done them justice; but when we see the same thing from older practitioners it deserves censure. It is a very defective *nomenclature* to impress the mind of a patient with the idea of *temporary* and *permanent* sets of teeth; it leads the patient into great error with regard to the merit of our operations. Patients are constantly complaining about their work not having been done well, when, in reality, the fault is in the changeableness of the parts—the gums and the mouth.

The plates of a set of teeth require constant attention, to keep them comfortably fitted during the changes the mouth undergoes, to give the patient the full value of a set of teeth, whether it be called a temporary or permanent set; and operations ought to be put up so that such alterations can be made, from time to time, as the case requires. On this account, more than any other, we use metallic plates, and single teeth or blocks set the *old way*.

Let young practitioners think of this before they get too much work out on some of the new plans recently so strongly urged upon them. J. D. W.

For the Dental News Letter.

## HOW LONG SHOULD DENTISTS WARRANT THEIR WORK?

Messrs. Editors:—An old gentleman, of high standing in society, called on me a few days since and stated that he had lost a filling out of one of his teeth, and that he had called several times at the office of the dentist who did his work for him, but could never find him in.

He then asked me if it was not customary for dentists to warrant their work?

I remarked that I considered it nothing but right and proper that dentists should warrant their work—at least for a reasonable length of time.

"Well," says he, "it has been *thirty years* since mine were filled."

The dentist who did the work is now an old man; and I understand that he has made upwards of one hundred thousand dollars with his own hands, by filling teeth exclusively, as he did no plate work.

Will he not have to leave a legacy, to have his old patients attended to when their fillings drop out? *

We would answer the above communication by saying, that circumstances alter cases, as the lawyers say. Some dentists ought to pay their patients for letting them operate, so uncertain are they themselves of the results of their operations; but if a young man learns his profession properly, no patient has any business to ask him to warrant his work. In early times every dentist was but an experimenter, and it may have been proper for them to warrant their operations. So now with persons who attempt to practice without a proper knowledge of their business. It is an insult to a dentist of proper education to be asked to warrant his operations; but it would be assuming a great deal for one who has "picked up" the business, to expect to be protected by the same rule. We now have schools of learning in our profession; and if a young man complies with all their requirements, in preparing himself for practice, he should be protected in his claims upon his patient for services rendered, even though he may sometimes fail to meet all the expectations of his patient. But if a patient employs a dentist who has not paid proper attention to his education in his profession, the patient employs him at his own risk, and the profession proper has nothing to do with any rule between the dentist and the patient. No one becomes a dentist by graduating from an office and offering his services to the public. Dr. W. W. Allport, in his address to the graduates of the Ohio College of Dental Surgery, treats this subject in a proper and sensible manner, and says: "The patients who come to you acknowledge, by their coming, their belief in the benefits of dentistry and in your skill. You occupy the same relation, in this respect, to your patient, that the physician does to his. The honorable physician never agrees to cure his patient."

J. D. W.

For the Dental News Letter.

# IRREGULARITIES OF THE TEETH.

BY T. L. BUCKINGHAM, D. D. S.

Messrs. Editors:—As irregularities of the teeth are at the present time attracting the attention of the dental profession more than formerly, allow me to present some facts in relation to them that have been overlooked, or, if not overlooked, they certainly have not been brought as prominently before the profession as they should have been.

I allude to those cases where the irregularities have been transmitted from the parents to the children. We can generally recognise some resemblance of the parents in the children, and the peculiarities are greater when there are strongly marked resemblances between the parents themselves.

It appears that when the law was established that each of the living species should bring forth seed after their kind, the law was not confined to the species alone, but it was also intended that each individual of the species should transmit to its successor some of its own peculiarities. This is understood and practised by those who raise stock; they always select the most perfect to perpetuate the race.

The husbandman, also, takes advantage of the best seeds, and these he selects with the most scrupulous care, knowing that the future crops depend in a great measure upon the kind of seed sown.

Now, if the peculiarities of the individuals are transmitted to their offspring in the lower animals and plants, should we not expect to find this transmission more perfect in the human families; and do not these peculiarities become characteristics of certain families? Can they in these cases be called irregularities? Are they not the natural order and arrangements of the parts?

My attention has been called to this subject by a case I have on hand at the present time. A young lady about 16 years of age, whose teeth are all regular and perfectly arranged, except the right superior central incisor, which projected considerably outside of the arch, and it was also shorter than the rest. (Her mother's teeth were arranged in the same manner.) I had no difficulty in getting it into its proper position, and retaining it there for about two weeks, but when I removed the apparatus it went back to its original position in two or three days.

I have drawn it into the arch three times within the last six months, and still it shows no disposition to stay there, although there appears to be nothing to prevent it. Whether I shall be able to correct this irregularity or not remains to be seen. I intend to continue trying until either the tooth or the patient become tired out.

The apparatus used in the above case was a plate struck up to fit the roof of the mouth with points running in between the teeth; a small button was soldered on the plate, directly behind the irregular tooth; a gum-elastic band was then passed around the tooth over the button; the pressure was in a direct line, so that the tooth yielded in a very few days. When far enough in it came in contact with the plate, so that it could be worn any length of time without drawing the tooth too far.

The class of these transmitted irregularities we most frequently meet with is where the superior incisors project very much; the bicuspids and molars are too close together, so that if we should measure across the mouth we would find it too narrow by at least the width of a tooth. In these cases the articulation is reversed, the upper bicuspids and molars strike on the inside of the lower ones, while the under incisors fall very far behind the upper. In these cases the roof of the mouth is very deep. I have traced this irregularity in one family through four generations—the children, their parents, their grand parents and their great grand parents. In some it is more marked than in others, but still it shows very distinctly in all.

This kind of irregularity can be corrected in a great measure very easily by striking up a thin elastic gold plate to fit the roof of the mouth, and allowing it to press tolerably hard on the bicuspid teeth on each side, so that when it goes in the mouth it may press these teeth out. When teeth have yielded so that the plate will press them no farther, it should then be opened, which can be done by bending it slightly; it will not then fit close to the roof of the mouth; but this will incommode the patient very little. It will be necessary, after the teeth have been moved some distance, to take another impression of the mouth and strike the plate up again, lengthening the ends of the plate so as to make it fit the last cast as it did the first. We sometimes have to repeat this operation three or four times, and it may be necessary to strike up a cap to go over one or more of the teeth, to prevent their articulation from interfering with their moving.

If the front teeth are to be drawn in at the same time the bicuspids are being pushed out, it can be done by soldering buttons on the plate, and using gum-elastic bands in the manner described in the first case.

Some of the advantages of the plate I have just been describing over some of the other apparatus used for the same purpose, are: it is very easily made; it interferes very little with the speaking or reading; it does not incommode in eating, and it is not seen. The patients are, therefore, more willing to wear it. They do not ask to have it taken out when they are going in company, as they generally do the apparatuses that show.

The plate, by resting on the roof of the mouth, cannot slip up and wound the membranes around the necks of the teeth, as ligatures will; and even when the gum-elastic band is used the plate prevents them from slipping up. The edges of the plate being comparatively thin where it presses upon the teeth, food cannot lodge between them. The pressure can be graduated by making the plate thick or thin, as the case requires.

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For the Dental News Letter.

## IMPROVED MOULDING-SAND.

Gentlemen:—Permit me, through your journal, to communicate to the profession, a discovery that I have made in moulding-sand. Take equal parts of soap-stone and Bristol brick, pulverize finely; mix. It is superior to any other moulding-sand, as it requires but little moisture to pack it firmly; and you can get a finer impression, and can pour your metal at any stage of heat without spoiling the die.

J. W. Winter.

Marysville, Cal., March 28, 1859.

For the Dental News Letter.

# ATMOSPHERIC PRESSURE PLATES.

BY J. D. WHITE.

The following is an extract of a letter received from a correspondent on the above subject: "I want to ask the editor of the *Dental News Letter*, how he would make a full upper set of teeth, on the suction principle, for a person who had lost all the lower teeth except the four incisors? I should be pleased to hear from him upon the subject by the next No. of the *News Letter*." We would answer this inquiry in the same way as if all the teeth were yet in the lower jaw. When patients present themselves, with four or six teeth only in the lower jaw, we always say that they require a lower set of teeth, as well as an upper; if they are not willing to incur the expense of both sets, we cannot be responsible for the result. We always give them our reasons, and, as a general rule, our method is adopted. A set of teeth placed in the mouth in that manner, cannot be of much use in mastication, because there is not sufficient chewing surface. If we do place a set in under such circumstances, as we have done in a few cases, we set shoulder teeth in front for the inferior incisors to rest on, as well as to afford as much masticating surface as possible. We have put on thick gold backs for the same purpose, before the shoulder teeth were made. The operation would, in time, be more satisfactory to the patient, if a lower set were also placed in at the same time, when only four or six teeth remain below; because the constant pressure of the lower jaw upon the upper in front, only causes rapid and ruinous absorption of the upper jaw, opposite the place of contact of the lower teeth. We have seen many cases where the bone, under such circumstances, has been so much absorbed, that the gum laid in folds and was as flabby as the lip, whilst the back part of the alveolus was large and full; the mouth, in such cases, is for ever ruined for wearing to advantage a whole set of teeth, on account of the front part being soft and the back part hard. The plate will always rock in mastication, on account of the unequal character of the texture of the gum. We have had a great deal of trouble in such cases, for the following reasons: if we take an impression with hard wax to press the soft gum down to be in a manner equal with the hard part, the soft gum prevents the plate from fitting without the same pressure constantly upon it, as was used in taking the wax impression; and when this pressure is removed, the elasticity of the soft gum throws the plate off from the hard gum sufficiently to loose the atmospheric pressure; on the other hand, if we take an impression with soft wax, or with plaster, so that the plate shall fit when the gum is at rest, then the same difficulty occurs when pressure is made opposite the soft part of the gum; the soft part yields and the atmospheric pressure is lost; in such cases we have been obliged to use springs. We hold it to be the duty of every dentist to inform his patient what will be the ultimate result of setting teeth, if their choice is not in strict conformity to good practice; moreover, we do not think it is right for him to adopt a species of *malpractice* to please his patient, simply because they cannot understand why he should differ with them. There is still another great objection to placing an upper set of teeth in the mouth, without a sufficient number of teeth in the lower jaw to constantly keep up an equal pressure on the upper. The back parts of the gums and jaws, both upper and lower, approach each other so much as to finally shut out the possibility of setting back teeth; the tuberosities of the upper jaw approach the lower, and the increased obtuseness of the angles of the lower jaw causes the lower gums to approach the upper; on this account the face becomes *old* much faster than when teeth are set in both jaws, as far back as possible, to keep up an equal pressure, as nearly as can be, as if the whole of the natural teeth were still in. We think this part of our subject does not receive sufficient attention. We are quite sure that the educated portion of our patients depend upon our judgment, as to what will be best in the end for them, in an artistic point of view, not merely in a mechanical sense, or convenience for the time being.

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For the Dental News Letter.

## SUPERNUMERARY TEETH.

Messrs. Editors:—If you think the following is worthy of publication, you are welcome to it:

June 7th, 1859, Miss S., in her fifteenth year, came to my office to have some teeth extracted. I found *thirteen* supernumerary teeth, varying in size and shape, in one cluster, about as large as a hickory nut, inclosed in the gum (except the points of two) above and in front of the left superior central and lateral incisors, forcing the central inwardly. She has a full complement of teeth; large and perfect, except the laterals, which are round and medium sized.

Respectfully, yours, D. R. Greenlee.

Meadville, Pa.

For the Dental News Letter.

# CALL FOR A NATIONAL ASSOCIATION ON A REPRESENTATIVE BASIS.

The undersigned, practitioners of dentistry, believing that a National Association of Dentists, composed of delegates from state, county and local societies, and dental colleges, would be calculated to promote the best interests of the profession, respectfully suggest to the dental societies and colleges throughout the country, the propriety of electing delegates to meet in Convention at the Falls of Niagara, on the first Wednesday of August, 1859, for the purpose of forming, if the assembled delegates shall deem it expedient, a National Association upon a representative basis:—

*Pennsylvania.*—J. DeHaven White, W. W. Fouche, Danl. Neall, S. L. Mintzer, J. H. McQuillen, J. Foster Flagg, Jas. E. Garretson, Jos. R. Jeffries, C. A. Kingsbury, Geo. T. Barker, Louis Jack, Wm. Calvert, D. B. Whipple, J. Gilliams, Jas. M. Harris, C. C. Williams, C. N. Pierce, T. L. Buckingham, Henry Townsend, Chas. Woodnut, S. Dillingham, Chas. E. Hopkins, And. Watson, A. R. Johnston, J. J. Griffith, Wm. Gorges, David Roberts, J. M. Barstow, Spencer Roberts, D. H. Goodwillie, Philadelphia; J. L. Suesserott, Wm. F. Trout, Chambersburg; C. S. Beck, Wilkesbarre; Isaiah Price, Jesse C. Green, E. P. Worrell, C. M. Valentine, West Chester; S. Atlee Bockius, Columbia.

*Ohio.*—Chas. Bonsall, H. R. Smith, B. D. Wheeler, J. Richardson, Jas. Taylor, J. Taft, J. G. Cameron, Cincinnati; B. Strickland, W. H. Atkinson, B. F. Robinson, M. J. Dickerson, B. A. Holliwell, W. P. Horton, T. S. Slosson, Chas. R. Butler, Cleveland; C. P. Bailey, Cuyaga Falls; B. F. Spelman, Ravenna; C. Palmer, Warren; J. F. Siddall, Oberlin; J. C. Burrows, Warren; S. P. Huntington, Painesville; E. J. Waye, Sandusky.

*Michigan.*—C. F. Knowlton, T. A. White, Geo. L. Field, S. C. Whiting, Wm. Cohoon, J. H. Farmer, H. Benedict, Detroit.

*Indiana.*—John F. Johnson, P. G. C. Hunt, G. C. North, T. M. Nichols, Indianapolis.

*Illinois.*—E. A. Bogue, T. P. Abell, Jas. Ketchum, W. W. Allport, E. Honsinger, L. P. Haskell, Frank B. Ferris, P. W. Ferris, Chicago.

*Missouri.*—H. E. Peebles, A. Blake, W. A. Jones, D. L. Levett, Henry Barron, Isaiah Forbes, H. J. McKellops, C. W. Spalding, Chas. Knower, St. Louis.

*Mississippi.*— J. H. Andrews.

For the Dental News Letter.

# PROCEEDINGS OF THE PENNSYLVANIA ASSOCIATION OF DENTAL SURGEONS.

A stated meeting of the Pennsylvania Association was held April 6, 1859, at 8 o'clock. President, Dr. DILLINGHAM, in the Chair.

The minutes of former meetings were read and adopted.

The Committee on Fee Bill asked to be continued.

The Committee on Charter reported progress, and were continued.

The resolution presented at last meeting, for the election of Mr. Samuel Lee Rymer, of England, to honorary membership, was, by ballot, adopted.

An amendment to the Constitution was presented by Dr. T. L. Buckingham, "That any member who shall neglect to pay his dues two successive years shall cease to be a member of this Association."

Dr. McQuillen having directed the attention of the Society to a memorial signed by a number of dental practitioners in the city, advocating the establishment of a National Association upon a representative basis; on motion of Dr. J. Foster Flagg, a committee was appointed to correspond with the Colleges and Societies on the subject. Drs. McQuillen and Flagg were appointed the committee.

There being no other business before the meeting, it was *Resolved*, That this meeting shall adjourn, to meet the third Tuesday of April, for the reports of committees and transaction of unfinished business.

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An adjourned stated meeting was held on the evening of April 19, 1859, at 8 o'clock. President in the Chair.

The Committee on Membership report, that Drs. B. M. Gildea, C. A. Kingsbury and E. W. Robbins have applied for membership in this Association, and they recommend them as worthy of election. On separate ballots each were elected.

The committee appointed to correspond with the dental organizations in the Union reported, that they had addressed fourteen Associations, and, with two exceptions, replies had been received, all favoring the movement.

On motion, the committee were continued to the third Tuesday in May, at which time they are to report.

The Society, on being informed that the memorial presented at the last meeting had been signed by a number of practitioners in different parts of the Union, it was, on motion, *Resolved*, That copies of the same be sent to the Dental Periodicals for publication.

The subject of Treatment of Alveolar Abscess having been chosen for discussion at this meeting, Dr. Buckingham spoke of his method of treating alveolar abscess, and expressed the belief that when abscess has existed for a length of time, and the fang is denuded of its periosteum, that all that can be done is the removal of the tooth. Dr. McQuillen objected to the term pyogenic membrane, and believed that there was no pus-secreting membrane; that pus was not a secretion, but only the result of molecular degeneration. He also objected to the usual method of treating alveolar abscess by the medical practitioner—that many postponed lancing the gums too long, and spoke of a case that was so treated, thereby causing suffering for a length of time that was immediately relieved by lancing.

Drs. Garretson and Flagg spoke of the use of tincture of iodine, and stated that, in their hands, it had been entirely successful in cases of alveolar abscess.

The discussion was also participated in by Drs. Dillingham, Peirce and Barker.

On motion, adjourned to meet the third Tuesday in May.

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An adjourned stated meeting was held the evening of May 17, 1859, at half-past 8 o'clock. Vice President in the Chair.

The Corresponding Committee reported that they had addressed and received communications from different members of the profession, which were read by the chairman.

On motion, the committee were discharged.

Election of delegates being in order, the Secretary stated that there were 41 active members on the roll.

On motion, a *pro rata* representation of one-fifth was agreed upon, and eight members were duly elected as delegates, with power to fill any vacancies that might occur.

A resolution was offered and adopted, that the delegates to the Dental Convention be instructed to co-operate with the delegates from other Societies in the formation of a Convention on a representative basis, if it is deemed expedient.

On motion, Drs. Barker and Buckingham were appointed to attend to the printing of the Constitution and By-Laws.

On motion, adjourned.

Geo. T. Barker, D. D. S., *Secretary.*

For the Dental News Letter.

## THE PROFESSION IN ENGLAND.

[From our London Correspondent.]

Since my last communication the professional horizon has considerably brightened in England. The College of Dentists has been placed in a position of entire safety by a judicious addition to its constitution, by which, for the future, none will be admitted members or associates who cannot prove, in a practical manner, to the satisfaction of the Body of Examiners, that they are competent to practice dentistry in all its branches. Dentists in practice, however, on or before the 20th April in the present year, will be entitled to membership *without* examination, on proving their title to the Council. The Body of Examiners comprises gentlemen well known as first class practitioners on both sides of the Atlantic. Here is the list: James Harley, James Robinson, Peter Matthews, George Waite, M.R.C.S., Thomas Stewart, F.R.C.S., H. Hulme, M.R.C S., and F.L.S., Dr. B. W. Richardson, T. Spencer Wells, F.R.C.S., and Somerset Tibbs.

It has been resolved to discontinue the ordinary monthly meetings of the College, it being understood that the Council will substitute occasional *conversazioni*, whilst lectures of great interest will be likewise provided.

On Tuesday evening last, (June 7th,) a most important meeting was held at the College of Dentists. At the request of a previous public meeting of the profession held in Cavendish Square, the Council was requested to nominate a committee to test the value of electricity as an anæsthetic with especial reference to dental operations. This was done accordingly, and the report was presented at the meeting on Tuesday. The report was of a most elaborate nature, being drawn up from actual experiment by scientific gentlemen at once fully acquainted with electrical phenomena and dental practice. You will no doubt receive a full report of the proceedings in the *Dental Review*, therefore I will merely mention that the *gist* of the report is that electricity in the extraction of teeth is—to say the best of it—unsatisfactory in its results, and which are very uncertain. A diversion of thought, however, is allowed to have the effect of diminishing the horrors of *l'arracheur de dents!*

As the College regulations require examination to test fitness to practice, it is evident that systematic instruction in a public school is rendered necessary; hence has sprung up a first class school, entitled "The Metropolitan School of Dental Science," to be formally opened on the first Monday in October. The Professors are, Dr. B. W. Richardson, Anatomy and Physiology; T. Spencer Wells, Principles of Surgery; William Perkins, Dental Mechanics; T. Hulme, Dental Surgery; Dr. Bernays, Chemistry and Metallurgy; and one or two other gentlemen well known as teachers.

It is intended to establish an Infirmary for Diseases of the Teeth in connection with this school.

Mr. Tomes has published his new work entitled "A System of Dental Surgery." It has been well received by the profession. It is an able manual, which should be in the hands of every student. Pity that so able a scientific dentist as Mr. Tomes should, in professional politics, act in an exclusive manner, to the detriment of reform and certainly against securing the good will of any large number of his brethren.

P. S. The names of gentlemen on the late committee on Electricity in Dental Operations are: Peter Matthews, Dr. Richardson, Harry Lobb, W. Perkins, Samuel Lee Rymer, Dr. Purland, T. Harding, Dr. Elliotson, A. Hockley, H. Kempton, E. Williams and Dr. Lawrence.

London, June 9, 1859.

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For the Dental News Letter.

## AMERICAN DENTAL CONVENTION.

[To aid in its circulation, we publish the following circular.]—Ed.

Augusta, Ga., June 1st, 1859.

Dear Sir:—The American Dental Convention will hold its Fifth Annual Session at Niagara Falls, commencing on Tuesday, the second day of August next, at 10 o'clock, A. M. At this you are respectfully and cordially invited to be present.

As every faithful and true dentist must feel a deep interest in the advancement of his profession, and an earnest desire that it shall stand second in rank to none of the learned professions, it is expected that each one will encourage every movement calculated to enlighten and improve the great body of "practising dentists" throughout the country. And, believing that the various Dental Societies, and especially the American Dental Convention, will do much towards elevating the profession, and thereby prove a powerful auxiliary in attaining the desired object, it is hoped that you will cordially and earnestly co-operate with us. Yours, very respectfully,

D. S. Chase,
*Corresponding Secretary.*

For the Dental News Letter.

## TEETH FOR THE MILLION.

There has doubtless been a demand the past few years, for a cheap substantial substitute for the natural teeth, when lost. There certainly has been a strong effort made by the profession to produce such a substitute; hence the cast plates recently called "cheoplasty," rubber, aluminium, &c., with which your readers are probably familiar. Actuated by the aforesaid demand, I, too, have tried various modes and compounds, and have recently hit upon (what is to me) a new base for artificial teeth: but, as there is "nothing new under the sun," of course there can be nothing new in dentistry. *N'importe.*

The substance I allude to is simply tinners' tin plate, which I swage and fit the same as a gold plate, and then fasten the teeth on it by casting with pure tin. The experiment, so far, is highly satisfactory, both for upper and lower sets, especially lower. A fair idea of the mode of putting up such work may be obtained on the last page of the *News Letter*, April, 1858, headed "Oliver & Harrison's Patent Teeth."

W. G. OLIVER.

Buffalo, N. Y.

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Philadelphia, June 16th, 1859.

GENTLEMEN:—In behalf of the Pennsylvania College of Dental Surgery, permit me space in your columns to tender an expression of acknowledgment and favor for the reception of a number of interesting and valuable specimens of peculiar interest and merit, from the following gentlemen, viz:—A. Preterre, of Paris, France; Francisco Rey, Havana, Cuba; W. P. Haywood, Trenton, N. J., and J. Hayhurst, Attleboro, Pa.

The above includes models, obturators and teeth mounted upon plates, together with specimens of morbid anatomy, etc.

The specimens first enumerated—from Preterre, of Paris—aside from their intrinsic worth, special and *transatlantic* interest, illustrate, in a high degree, the restorative progress of our science, and, *as well*, manifestly display ingenuity of purpose, with ability and skill in execution, certainly of no ordinary capacity.

Yours, truly, W. CALVERT,
*Dean of the Faculty.*

THE DENTAL NEWS LETTER.

JULY, 1859.

## VALEDICTORY.

With this, the closing number of the Twelfth Volume, my relation to the *Dental News Letter* ceases. A few remarks of a personal nature may be pardonable here. My connection with the *News Letter* commenced with its first issue, indeed with its very inception. The first six volumes were published without any assistance in its management, and the last six, as is known, in association with my friend Dr. J. D. White.

In consequence of the constant labor and unremitting attention necessary to the promotion of my business interests, I have at times felt that the claims of the *News Letter* made too great an addition to my labors; yet, after the work was done, I was amply repaid in the gratification derived from the favor with which the profession received and spoke of it.

Nineteen years of uninterrupted association with the dental profession, have necessarily created habits of thought, and sympathies and friendships of a purely dental character, and which, to a great extent, must remain as they are now, a part of my nature, and I do not therefore wish to forget or be forgotten by my many friends in the profession, even though not now in active co-operation with them, for I expect to feel as much pride in its achievements and continued growth as ever heretofore.

With these few words of explanation I now take my leave, gratefully remembering the many courtesies received from the conductors of our professional journals, and the many pleasant communings I have had with the numerous readers of the *Dental News Letter.*

JOHN R. McCURDY.

*Practical Hints.*—We would inform our correspondent asking us for a continuation of "Practical Hints," that we will do so in the next number of the Journal. J. D. W.

*Communications*, for the future, must be received by the 15th of the month preceding the date of publication. J. D. W.

*See Cover* for advertisements of interest, including "Dissolution of Copartnership," etc.

# PUBLISHERS' NOTICE.

This number completes the Twelfth Volume of "THE DENTAL NEWS LETTER," and terminates its existence under that name, and as a Quarterly. We propose publishing August 1st the first number of "THE DENTAL COSMOS," which will be issued *monthly* under the supervision of three gentlemen well known to the profession, who will be assisted by an able corps of contributors. Dr. J. D. WHITE will have charge of *Original Communications;* Dr. J. H. MCQUILLEN of *Dental Literature;* and Dr. G. J. ZIEGLER of *Medical* and *General Science*, in their relations to DENTISTRY.

Under this arrangement, we hope to secure for "THE DENTAL COSMOS" the highest possible character for literary and scientific ability; afford more frequent opportunities to the profession for an interchange of sentiment on those subjects in which they are most interested; supply more fully the increasing intellectual demands of the age; and, by a thorough distribution of Dental intelligence, lead to the general adoption of enlarged views on Dental Science.

Of course, in this arrangement, much additional outlay will be required, both for editorial supervision and cost of publication. But we confidently hope to render "THE DENTAL COSMOS" so valuable, that every practitioner will recognize its worth; and, for its immediate value to himself, and its influence in elevating the standard of the profession, cheerfully contribute the subscription price to the furtherance of the enterprise; hence, we earnestly invite the intellectual aid of *old* and *new* friends, to make it all that the profession and publishers can desire.

In the selection of a name, while avoiding hackneyed appellations, we have sought to select one expressive of a wide field of observation, and indicative of our purpose to present our readers with a faithful exhibit of the dental world.

With this announcement of our plans and hopes, we cordially invite and confidently expect the co-operation and support of the friends of dental progress.

The terms of subscription for THE DENTAL COSMOS will be as follows:—

One Copy, one year, $2 50, *if paid in advance.*
do do 3 00, *if not paid within the year.*

JONES & WHITE,
*Publishers,*
528 Arch Street, Phila.

*Associations*.—As the time of holding the next Annual Dental Convention draws nigh, the interest in it seems to increase. The inquiry of each one with whom we have spoken, is, what will be done at the next Dental Convention? will it be broken up and a society formed? or will things still go on the same way? We do not see the necessity of breaking up the Convention if a society be formed; we only regard it as a favorable opportunity to form a National Society, as a large number, doubtless, of the prominent members of the profession will be gathered together on that occasion. If the Convention does not meet the wants of a large portion of the profession, why not at once form a National Society? and let all who wish to join do so, and then abandon the Convention, or still continue with it, and be a member of the society also. Being a member of the one should not disqualify one for membership in the other. We have said, elsewhere, that dental conventions, as they are called, do not meet the wants of the dental profession—we still say so; but in saying so, we do not mean to be understood as objecting to the holding of them as often as the profession see proper, nor do we object to what they do at them; if we do not approve of them, we can do as we have done, stay away. We think they have done a great deal of good, and they can and will do much more; but a society could do, if properly conducted, a *different kind of good*. We shall always hold it to be necessary, that our profession shall have some great head, some flag to march under, some mark of distinction by which to identify the fully competent from the tyro or indolent and wilfully ignorant. A standard of qualification must some day be established. We hold it to be the duty of the older and educated portion of the profession to name what that standard of qualification shall be, in what it shall consist, for the information of the young inquirer and the older practitioner, that he may know what is required of him, and that he may know what course to pursue to qualify himself to merit the respect and confidence of the intelligent portion of the community and the profession. We do not by any means believe, that every one who practices our profession without proper qualifications is *dishonest*, or unambitious to rise to the highest possible attainment in his profession, but he does not, as things stand at present, exactly know what is required of him—he has no mark to aim at. It can only be those who have a large amount of experience, directed by a proper education in his profession, who can dictate to the learner what is most useful to him, and it is the duty of the first to establish a standard for the proper information of the latter. We do not intend here to discuss the merits of a basis on which a National Society shall be formed, but we do not see how any one could object to forming one; surely not on account of the old American Society not having been successful in doing good; it was as defective as the convention system is in its organization. We attended two or three of its meetings to very little purpose. We believe that the profession is now in a condition to form a National Society on such a basis as would be of great use to its members and to the profession. J. D. W.

*A Friend* makes some inquiries about the proposed "World's Dental Convention," expressing a favorable opinion of it and a desire to attend it, and asks whether there has been any expression of opinion on the subject by the dentists of England.

We answer, that a communication on the subject from an English correspondent was published in our October number for 1858, in which the "disjointed state of the profession in England" was alluded to, and the hope expressed, that by the time of the contemplated World's Exhibition in 1861, which would be an additional attraction, the profession then would be in a more harmonious state, and that therefore a more suitable time for the holding of a convention, to all of which we readily assented in a note annexed; and we now, hope, that all things will prove favorable, and that there need be no further postponement. M'C.

*To Correspondents.*—An esteemed correspondent in Ireland—Mr. Richard Barnett—sends us a communication "On a useful manner of applying gas," but which we do not publish, as the method is very well known here. It consists of a wire guaze-cap over an upright gas burner, by which the flame is greatly enlarged.

"*A new Traveling Case for Dentists*" is the subject of a communication from J. Carroll House, accompanied by a view of the case, in which is shown a multiplication of drawers and appliances. It is no doubt a very compact and very ingenious contrivance. We are, however, compelled to lay it over, along with other matter, for the present.

M'C.

*The Teeth: their Diseases; their Effects on the General Health; their Remedies, &c.* By G. McDonald, Dentist, Macon, Georgia, 1859.—This is a popular treatise well arranged and pleasantly written, and is well calculated to accomplish good.

Such publications as this, though partaking somewhat of the character of an advertisement, are yet eminently useful, in plainly directing the attention of the public to the importance of the preservation of their teeth, and the aid that may be afforded by the skillful dentist.

*Paper Pellets.*—We have been shown a very neat article of this kind for drying out cavities, prepared from tissue or bibulous paper, and put up in boxes, each containing some nine hundred pellets of various sizes.

The operator will readily perceive the saving in time that will accrue by having such always prepared and at hand. They are, we presume, for sale at the dental depots.

*A System of Dental Surgery.* By JOHN TOMES, F.R.S.—This recent English work, we are informed, will be shortly published in this country by Messrs. Lindsay & Blakiston, who have also in press

*A Practical Treatise on Operative Dentistry.* By JONATHAN TAFT, D. D. S.—In these works we anticipate valuable additions to the standard literature of our profession. M'C.

## AN HISTORICAL REVIEW OF DENTAL SURGERY.

FROM THE EARLIEST PERIOD TO THE COMMENCEMENT OF THE PRESENT CENTURY.

[From Kert Sprengel's "*Geschichte der Med cin,*" (History of Medicine.) Translated from the French of A. T. L. Jourdain, with Critical and Explanatory Notes.]

BY A. HOCKLEY.

[Continued from page 126.]

"According to Cœlius Aurelianus, scarifications of the gums and the application of cupping glasses to the cheek are frequently a great relief in toothache. This complaint may also be combatted by a sort of cauterization, which is applied by twisting some wool around a probe, dipping it into boiling oil, and applying it either to the tooth itself, or on both sides of the gum.

"Cœlius condemns the inconsiderate extraction of teeth, which, as it removes the pain without curing it, ought only to be regarded as a last resource when every other has failed; he urges, above all things, that care should be taken in extracting teeth which are firmly fixed, as the adjacent parts, particularly the eyes, are always affected by the operation, and frequently, it is not only one tooth, but the entire jaw which aches in such a manner as to render it necessary to extract all the teeth in order to obtain relief.

"Marcellus of Bourdeaux was considerably behind his predecessors, whose precepts, as we have seen, were generally very judicious. This writer repeats the same words of Scribonius, and recommends the use of amulets and other superstitious means. Thus, when a tooth which is loose or painful is to be extracted, the nose of the patient should be rubbed with brown sugar, ivy, and green oil; he is advised to hold his breath, a stone is then placed between his teeth, and he is made to close his mouth. The fluid which causes the pain is then seen to flow from the mouth in such quantity as frequently to fill three pots; after having cleansed the nose with pure oil, and rinsed the mouth with wine, the tooth is no longer painful, and may be easily extracted. The tooth will likewise drop out by itself if it be rubbed with African sponge, but care must be taken not to meddle with a tooth which is healthy. To preserve one's self to a certainty from the toothache, it is only necessary, at the return of the swallow, to repair silently to the border of a clear rivulet, to take some water in the mouth, and to rub the teeth with the forefinger of both hands, and repeat these words:—'Hirudo, tibi dico, quo modo hoc in nostro iterum non erit, sic mihi dentes non doleant toto anno.'

"The teeth, says Ætius, are open at the roots, and these openings admit small nerves coming from the tri-facial. For this reason they are the only bones which can become painful of themselves; they are nourished by the deposition of a superfluous nervous fluid in their interior; but at the period of old age the process of nutrition ceases, they then become loose, and finally drop out. Thus, there are two kinds of odontalgia, according to the superabundance or want of the nutritive principle, and by either of these we should be guided in the choice of remedies. These remarks of Ætius display a skillful anatomist for the time in which he lived, as those of Galen on the inflammation of the teeth denote a physician well versed in diagnosis. Ætius advocates the burning of phagedenic ulcers of the teeth, with a probe covered with wool and dipped into boiling oil; also the excision of abscesses of the gums, because, when an excision only is made, ulcers frequently result from it. When the epulis does not yield promptly to caustics, it is seized with pincers and exorcised with a straight bistoury. When incision does not suffice to cure ulcers of the gum, it is best to extract the decayed tooth which occasions them. As to the manner of filling and extracting the teeth, as well as the treatment of caries with which they may be affected, Ætius does nothing but copy Galen.

Paulus Ægineta distinguishes very well epulis, a fleshy excrescence of the gum, growing above the teeth, from parulis, an abscess of the same gum. The former is removed by raising it with a hook or forceps, and cutting it with a bistoury, and the latter is cut round with a sharp-cutting instrument, although it may sometimes be cured by making a simple incision. After the operation, the patient's mouth should be rinsed with wine, and a mixture of honey and vinegar, followed by an application of verdigris. When a tooth is to be extracted, the gum must be detached from it, down to the edge of the alveolus. It is then seized with the Rizagra and well shaken in order to loosen it, and afterwards extracted by pulling it perpendicularly. He also, with Celsus, recommends, that previous to the operation, the cavity of the tooth be filled with a small tent, so that the tooth may not be broken; projecting teeth may be filled, and the same means may be adopted for removing the sharp edges of those that have been broken; Paul admits with Galen* the inflammation of the teeth, and recommends various electuaries and powders for this, as well as for several other diseases.

"The Arabians followed those precepts which had been laid down by the Greeks, and from their pusilanimity they easily accommodated themselves to the use of remedies by the aid of which they hoped to remove teeth without pain. Aaron, a physician of Alexandria, who lived about the year 622, recommended colocynth for that purpose.

"Hhonain Ebn Izhak and Rhazes prescribed other methods. The latter went so far as to propose the use of red and yellow arsenic, as being well adapted to prevent the habitual bleeding of the gums. He directs that the gums of children who are cutting their teeth should be rubbed with the finger, and that the hard substance then employed for that purpose be thrown aside; that molar teeth, which ache very much, should be burnt by pouring boiling oil over them; and that broken teeth, if painful, should be cauterized. He says, that when the gums will no longer adhere to teeth which are decayed, the latter may be secured by a small gold chain, or their roots cauterized with a golden cautery; and that, before extracting decayed teeth, they should be filled with resin, which will greatly assist to loosen them. Iahiah Ebn Serapion has also recommended various methods of fixing and cleaning the teeth, as well as for strengthening the gums, curing ulcers, and filling decayed teeth. When a tooth became loose, he burnt the roots of it, or secured it by means of a small gold or silver chain.

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* "With the exception of Galen and Ætius, the knowledge of the Greek and Roman writers, of the structure and development of the teeth, was very limited, and their views upon the subject extremely fanciful and imperfect. Hippocrates describes the teeth as a glutinous substance, growing from the head and jaws. the fatty part of which is dried by heat, and burnt up, and that they are much harder than the other bones, because there is nothing cold in them. That in the fœtus they are nourished by the food of the mother. and after birth. by the milk which the infant sucks from the breast. He considers that to have many teeth is a sign of living to a considerable age. Aristotle asserts that the teeth continue to grow and increase in length during life, which constitutes the difference between those and the other bones of the body. That man has more teeth than woman. and that the same difference may be observed between the sexes of various classes of animals. Aretæus considers that the cause of toothache is known only to God: and Pliny remarks on the indestructibility of these organs, that while every other part of the bodies enclosed in the sarcophagi was destroyed, the teeth remained perfect. Galen, who possessed a greater amount of knowledge on the subject than any other ancient writer, enters into a full description of the structure and formation of the teeth. He defines them as true bones, and states that they are formed during the period of gestation, but remain hidden in the alveoli until birth. That the canine teeth had received the appellation of ocular, because branches are sent to them from a nerve, which distributes others to the eye; and he describes with accuracy the forms of the roots of the molar teeth of both jaws.

"It appears strange that the Greek and Roman writers make no mention of the replacement of the natural teeth by artificial ones, as at the period they wrote, and for a considerable time previously, this branch of the dental art was extensively practised at Rome and Athens, as may be inferred from the allusions of Martial and Catullus, and other satirical writers to the manners and customs of the people

"Celsus, who describes most accurately the various operations in Dental Surgery, speaks only of the fixing of teeth, which are loosened. to the adjoining ones by means of gold or silver wire; a method adopted nearly 500 years previously by Hippocrates, and recommended by him chiefly for adjusting fractures of the lower jaw. And who advises. that when the broken ends of the bones are placed in apposition, the teeth should, if they be disturbed and loosened, be tied to others with a gold thread This practice of fixing teeth was not an uncommon one at that period, as the following extract from the celebrated Laws of the Twelve Tables will show: the tenth of which, relating exclusively to burials and funeral ceremonies. among other directions, says:—'Let no gold be used, but if any one has had his teeth fastened with gold. let it be lawful to bury or burn that gold with the body.'

"'The advice of the ancient poets upon the preservation of the teeth,' formed the subject of a Paper read in 1803, by J. R. Duval, before the Society of Medicine of Paris. An English translation of the same by J. Atkinson. under the title of 'The Dentiste de la Jeunesse,' was published in London. 1820: in it will be found many allusions to the wearing of artificial teeth by the ancients."

"If the pain caused by a decayed molar tooth is such as cannot be alleviated by the ordinary methods, Haly Abbas recommends the application of red-hot needles, conducted through a metallic tube into the cavity of the tooth, there to remain until perfectly cold. Should this method also fail, the tooth must be extracted or destroyed by the application of asses' milk with assafœtida. In cases of Epulis and Parulis he raised the former with pincers previous to excision, and opened the latter with the phlebotomum or a piece of pointed wood. Previous to extracting a tooth, especially a molar, he cleared the gums away to the root, and afterwards loosened it with pincers. For removing irregular supernumerary teeth he employed a beak-shaped instrument. Avicenna gives some very sensible advice for the preservation of the teeth, and for their diseases indicates numerous remedies, some of them being his own invention, but the greater part being taken from Galen. He prefers that a tooth which is firmly fixed in its socket should not be extracted, for fear of injuring the jaw-bone, exciting inflammation of the eyes, or producing fever. He extracted teeth after the manner of the ancients, and was of opinion that it may sometimes be desirable to loosen a tooth when painful, even though it be perfectly sound, because, by so doing, the matter which has formed and causes the pain is liberated. He applied the actual cautery and boiling oil in cases of parulis, and recommends arsenic and the grease of the green frog as proper means for assisting the spontaneous falling out of the teeth. Jean Mesué believes that odontalgia, when it becomes settled in a tooth, will easily extend to the others, and therefore advises that the tooth so affected should be extracted during a cessation of pain; for if the operation is performed whilst the paroxysms are in full force, the patient will be exposed to snycope, violent rheumatism, abscesses, and even death itself. He tells us that, in addition to the ordinary methods of removing a tooth, it may be made to fall in pieces by touching it with burnt nuts or a grain of olibanum, and that fistulous swellings of the gum should be cauterized, or the tooth which causes them removed; also, that when the jaw-bone itself is diseased, it should be laid bare, in order to remove the diseased part.

"Albucasis* recommends cauterization with a small steel wire for the cure of ulcers, loosening of the teeth, and odontalgia produced by cold. After excision of an epulis, verdigris, he informs us, should be applied to the wound; and as the tumor often returns, the operation should be frequently repeated. He is the first who makes mention of the tartar observed at the roots of the teeth, and which it is necessary to remove with scrapers of various forms. As it is well not to remove all the tartar at once, he directs that the operation should only be completed after three or four sittings. Albucasis was opposed to the extraction of teeth, for the reason that they do not grow again. But when the operation is imperative, the head of the patient, he says, should be placed between the knees of the operator, and after well clearing the gum, the teeth should be gradually loosened, and then extracted by pulling it in a direct manner. If the tooth does not readily come out, a small lever should be inserted under it, so as to raise it a little before again attempting its extraction, great care being taken not to break it or to leave any portion of the roots, for fear that serious injury may arise.

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*" Albucasis, the most eminent of the Arabian surgeons, flourished at the commencement of the eleventh century, and by his writings greatly assisted in rescuing Surgery from the contempt in which it had previously been held. The Arabians were the principal surgeons of that period, but their prejudices and religious tenets forbidding them from handling the dead subjects, their knowledge of Anatomy was very limited. and Surgery, in consequence. fell into disrepute. Albucasis, however, revived it. and in his principal work 'De Chirurgia' (the Arabic and Latin manuscripts of which are now in the Bodleian Library, at Oxford) he not only describes the various operations in Surgery, but is the first of the ancient writers to give a description and drawings of the various instruments used in each operation. The

"We may here observe, that, as far as can be ascertained, the extraction of teeth was in his time practised exclusively by the bath-keepers, since he advises that those empirics should be avoided, as they frequently extracted a sound tooth for a bad one; and asserts that the least mischief they did was to fracture the tooth or to remove a portion of the jaw-bone with it.

"There are, at the present day, says this distinguished surgeon, so many instruments for operating on the teeth, that they cannot all be described, but a skillful practitioner will always know how to select the most suitable for each particular case. He recommends, however, for loosening the teeth previous to extraction, a small pair of forceps with large claws and curved handle, strong enough not to bend or slip. For extracting he used a similar but stronger instrument, made of Indian or Damascus steel, the beaks of which were furnished with small teeth like a file. The claws of the instruments for removing the roots were also provided with small teeth, and made in the form of a parrot's or pheasant's beak. Albucasis extracted teeth in the same manner as Galen; but when the teeth approximate, so that a file cannot pass between them, he recommends, that previous to extraction they be separated by removing a portion of the defective tooth, which operation, he says, requires considerable time to perform.

" When, from a fall or a blow, the front teeth are loosened, and the use of styptics fail to tighten them, they may be fastened, he tells us, by passing a double thread of gold or silver around and between the loose teeth and those adjoining which are firm, in such a manner that all movement is impossible; the ends of the threads are then to be twisted, and afterwards hidden between the teeth, so as not to injure the tongue. He was also the first who taught that the teeth may be replaced by other natural teeth, or by artificial ones made from the

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chapters on the operations relating to the teeth contain numerous drawings of various forms of instruments for scraping, filing, and extracting teeth. Albucasis also contended with great force against the prejudices, then so common, in attributing to certain metals. as gold and silver, qualities superior to steel for surgical instruments. His works, in a collected form, under the title of 'Al Tacrif,' or the Practical Method, have been translated and frequently printed in Latin."

bones of an ox; and for fixing them he adopted the same method as for fastening them when loose. But this operation of replacing the teeth requires, says he, a skillful artisan

"If the majority of the Arabian physicians already mentioned, and Albucasis above all others, have claim to our esteem as being well versed in the dental art, and as having enriched by their labors the stores of knowledge left them by the Greeks, Avenzoar, on the contrary, appears to have been hardly acquainted with the labors of his predecessors since, as a remedy for caries and loosening of the teeth, he was contented to open the basilic vein, and beyond this he does not speak of a single operation or disease relating to the teeth.

"Amongst the writings of the principal physicians of the middle ages which have been transmitted to us, no mention is made of dental operations. The first who says a few words on the subject is Brunus de Longobuco. This practitioner exhibits a great predilection for the actual cautery, and advises its application to ulcers and cancers of the gums, to epulis and decayed teeth. He does not speak of removing teeth by extraction, but recommends that the roots be anointed with flour and the juice of tithymal; after which the teeth will fall out. Lanfranc, of Milan, who follows him step by step, considers the extraction of a molar tooth a very serious operation, and advises the use of narcotics as a remedy for toothache. Pierre d'Espagne abounds in magical and superstitious formula.

"Theodoric, of Cervia, wisely recommends an examination of such teeth of the lower jaw as are affected by ulcers, for if a serous discharge is observed to flow from the roots, the teeth so attacked should be at once removed.

"John, of Gaddesden, thinks that extraction is justifiable when the toothache is incurable, but that the patient should be prepared for the operation by being submitted to a laxative regimen and the administration of lavements and purgatives. After these preliminaries, the gum should be well cleared from the tooth, which should be pulled direct with the forceps, or it may be raised up with a kind of lever, large on one side, pointed and sharp-cutting on the other. This method of extraction being, however, attended with danger, especially if the tooth has not been previously loosened, the employment of remedies which will cause the tooth to fall in pieces cannot, he thinks, be too strongly recommended. Among those to be employed for that purpose the principal are the actual cautery, the milky juice of the euphorbium, but above all, the grease of the green frog, the efficacy of this last being such that an ox on biting one of these reptiles will instantly lose all his teeth. He advises that when ulcers of the gums are produced by a diseased tooth, the tooth should be cauterized or removed; and if the bone is diseased, it should be laid open, and afterwards scraped down.

"Guy de Chauliac complains bitterly that the extraction of teeth had fallen into the hands of the barbers and dentists, because he considers that it is an operation of sufficient importance that a physician should not disdain to perform, or at least be present during the operation. This writer does not depart greatly from Albucasis, but he is the first who speaks of filling carious teeth with resins and aromatic substances,* in order to prevent the food from entering their cavities; the decayed part being removed with a small scraper and a file. The extracting instruments of Guy de Chauliac appear to have been all borrowed from Albucasis, with the exception of a two-pronged elevator resembling a hind's foot. He appears to have had but little faith in the virtue of those substances which were considered useful in causing the spontaneous falling away of the teeth, as, after enumerating them, he adds; "Multas tamen dant promissiones, operationes vero paucas."

"Valescus, of Tarentum, recommends the filling of decayed teeth, for preventing the breath from becoming fetid, for mitigating and relieving pains in the teeth, and for destroying the worms which are found in their cavities. He employs for those purposes several aromatic and other substances, as powdered lark-spur, pepper, myrrh, salt, &c. If these remedies fail, recourse may be had to narcotics and the actual cautery. He professes that the tartar can be removed by the friction of acrid powders; and that the teeth may be loosened by the application of arsenic or the juice of tithymal. Pierre de Cerleta was opposed to the use of caustics and arsenic for the cure of ulcers and abscesses of the gums. He advises that a palliative treatment should be adopted in cases of hard and cancerous epulis, but that those of a soft growth should be tied or cauterized, in order that hæmorrhage might not supervene. He removed the tartar from the teeth with a scraper, or by means of acid powders, and cleansed the cavities of decayed teeth with nitric acid, or enlarged them in order to prevent the lodgment of food.

"The confidence which had hitherto been placed in those pretenders who professed to be endowed with the power of causing teeth to fall in pieces, diminished daily at about the period of which we are now writing. But, at the same time, little consideration was exercised in the extraction of teeth; the excellent precepts of the ancients on that subject being almost entirely forgotten. Thus, Barth. Montagnana recommended extraction as the best remedy for decayed teeth, although he does not deny the advantage of cauterization when the disease has not reached to a great extent.

"On the other hand, the opinion that caries of the teeth is caused by the presence of worms became more and more settled; and that opinion, as we shall see further on, prevailed for a considerable time. Valescus had already spoken of these supposed worms; and Jean Plauteriaus confirms that statement, and suggests several methods for destroying them. The latter burnt decayed teeth with a red-hot iron wire, and afterwards filled them with treacle, or else extracted them; but he does not appear to place much faith in the mode of extraction adopted by his predecessors.

"The art of stopping teeth was until this time confined principally to filling the cavities of decayed teeth with resinous and aromatic substances, to prevent their breaking during the operation of extraction. The first who speaks of stopping teeth with leaf gold is John Arculanus. He directs, however, that due regard should be had to the temperament of the patient; for if that be of a warm complexion, the tooth should be filled with cold substances; but if of a cold complexion, with warm substances. He advises also that before a tooth is cauterized it should be pierced with a small trephine, in order that the adjustion may be more perfect. When all other remedies have failed to remove the toothache, and the cause of suffering lies in the nerve of the tooth, he thinks that extraction should be resorted to, for fear that the pain might extend to the neighboring teeth. But when the tooth is sound, and the pain proceeds only from the gums, then extraction would be not only unjustifiable, but injurious. And, finally, he advises that, previously to extracting, the gum should be removed from the tooth, and the patient prepared for the operation by bleeding, and the administration of purgatives and soporifics.

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* "Haller believes that Paulus Ægineta is the first to speak of the Art of Stopping Teeth, but the passage of the Greek physician has reference only to the practice of filling their cavities before extracting them, a method previously recommended by Celsus.—*Note by Sprengel.*"

"Frequently, says A. Beneditti, pains in the gums or in the jaw are mistaken for odontalgia, and thus many ignorant and rapacious empirics extract sound teeth; and this not only does not remove the pain, but often destroys the firmness of the adjoining teeth. He, however, thinks that the teeth may be the seat of pain caused by the presence of worms in their interior, and indicates numerous remedies for destroying those worms—among others, brandy. He directs that opium is to be given in moderation, and mentions a case where the abuse of that narcotic had 'plunged a gentleman of Padua into an eternal sleep.' With regard to extraction, he recapitulates the more practical precepts of the ancients, and advises that it be resorted to only as an extreme measure, when every other has failed. But sometimes a tooth has its roots so securely fixed, that it would be difficult to remove it; he therefore prescribes various medicaments for the purpose of loosening it, and rendering extraction easier. John, of Vigo, allowed abscesses of the gums to point, after which he opened them and cleansed them with rose honey and Egyptian ointment. He removed caries, especially of the molar teeth, with the trephine, file or scraper, and afterwards filled the cavities with gold leaf. He considered that the extraction of teeth requires to be performed by a skillful surgeon, and he inveighed against those who had abandoned the operation to barbers and traveling charlatans.

"About this period (1548) appeared the first work specially devoted to the Dental Art. It is written by Guantier Henry Ryff, and is extremely scarce at the present day. Of the contents of this work I am unable to speak, but, as a proof that it does not contain many novel ideas, it is not quoted by any of the surgeons who were contemporary with him, and wrote upon the same subject."—*London Dental Review.*

[To be continued.]

"*The Vulcanite Base.—Meeting at the Hanover Square Rooms.*—On Wednesday evening, April 6th, Mr. Putnam invited the members of the dental profession to a meeting at the Hanover Square Rooms, for the purpose of discussing various questions relating to the Vulcanite Base. Mr. Harrison presided on the occasion.

"Mr. Putnam, in his address, observed, that in calling the meeting he had acceded to the request of many gentlemen present; and, as he was desirous that the process should be rendered accessible to the profession, he would endeavor, as far as possible, to remove those difficulties which in a degree prevented some whose means were limited from at once enjoying all its advantages in practice. As to the terms on which he was prepared to offer his invention to the profession, he did not consider that he would be acting in justice to those who had already purchased licenses, were he to reduce the fee without some intimation of their concurrence. He did not ask any one to protect him from fair or unfair competition; he was willing to acknowledge any improvement which may supersede that which he had introduced to their notice, and to yield to any superiority over the present system in the mode of manipulation, preparation of material, and principle of vulcanizing. In regard to his patented apparatus, he did not suppose that any one would give themselves the trouble consequent on an infringement of it, but in the matter of the hard vulcanite patent he believed that a few would like, if possible, to evade it in some manner. Mr. Putnam then read the letter which appeared in the *Dental Review* of last month, and in regard to two of the specifications referred to in that letter, (Mr. Hancock's and Mr. Goodyear's,) he was disposed to offer such information as he had been able to obtain, although nothing decided could be determined on except in a court of law. He would state, however, that a patent, which involved this one of Mr. Goodyear's of 1851, (which letter was taken out in America simultaneously with the one now in question,) was there strongly contested, a few years since, but *fully sustained*, notwithstanding these some specifications of Mr. Hancock of 1843-46, and others, were produced as evidence against Mr. Goodyear's claims.

"While admitting that the Goodyear patent has some weak points, he could not disguise the fact that Mr. Goodyear and his representatives are determined to prosecute those who infringe their patent; and should any such suit or suits be successful to Mr. Goodyear, then those who have used the material for a time without a license will be held accountable for the amounts they had received while using it in practice, with interest thereon, up to the time of said decision. In conclusion, Mr. Putnam invited those who had insinuated that a new and improved process had sprung up, (or was about to do so,) different from what he first suggested to the Profession in England, to come forward in a manly and honest manner, and enlighten the Profession as to their improvements and their knowledge of patents.

"A lengthened discussion followed, several gentlemen giving it as their opinion that Mr. Hancock's patent of 1843 covered all that was required; that the patent of 1855 of Mr. C. Goodyear, jun., which had lapsed from non-payment of the fees, contained the whole process; that Mr. Putnam, by fixing the charge for his apparatus at so high a figure, had caused others to produce a vulcanizing apparatus at a less cost and with a fair and reasonable profit; and that if he would separate his own from Mr. Goodyear's patent, and charge a fair remunerating price for his apparatus, he would receive that encouragement from the profession to which he was justly entitled.

"The proceedings terminated by a vote of thanks to Mr. Putnam, and to Mr. Harrison for his conduct in the chair."—*London Dental Review.*

# Extracts from the Dental Periodicals and from other Publications

WITH OCCASIONAL COMMENTS.

BY J. R. M'CURDY.

*The Dental Review*, (London,) February.—In this number we find a continuation of the very able lectures of Dr. Richardson. The subject of the present Lecture is "Neuralgia in Relation to Toothache and Diseases of the Teeth," and from which we make the following brief extracts:—

"But there are some practical facts connected with neuralgia caused by malaria which are known, and as known are of peculiar interest to the dental profession. I will notice, in a line, two or three of these.

First. The neuralgia of malaria is developed (I think I may say always developed) most distinctly in the course of the fifth nerve. It is either facial neuralgia or tooth neuralgia.

Secondly. The cases of it in these days ordinarily come from rural districts.

"Thirdly. The type of the disease is marked by one grand sign, the periodicity of the attack. Not more certainly does St. Paul's strike twelve at noon, daily, than that the malarious neuralgia does at certain fixed times strike the sufferer. This is, in a great measure, peculiar to the form of neuralgia under description, and hence, when periodical neuralgia is once established, the cause is in the majority of cases plainly indicated.

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Again, "Neuralgia, as occurring from *local* causes, is the form of the disorder of deepest interest to the dental practitioner. In all its forms it presents itself to him, but in this form most, for when facial neuralgia occurs from purely local causes, a tooth in a diseased state is the common prevailing cause.

"This arises, not from anything specific in dental disease, but from the circumstances that a tooth, as connected with the periphery of the nerve, is more subjected than other parts to such diseases of its own structure as shall expose the nerve periphery to excitation.

"In a case where toothache in its most severe form occurs, from either exposure of the supplying nerve, or injury, or pressure, in such case the toothache is a true neuralgia, localized certainly, but still a neuralgia.

"Toothache thus induced, is, in fact, the simplest representation, both as regards cause and effect, of neuralgic pain. But this neuralgic pain, situated at the veriest extremities of the nervous distribution, is not given to travel far in the course of the nerve; therefore it is called toothache from its local character.

"But neuralgia having a local origin and more extended range, may have a tooth for its centre in a way different to that which has been described. In such cases the tooth itself need not, in its crown part, be diseased, nor need its nerve be exposed. The disease lies deeper; lies often in the extreme point of the fang; and thus, by injuring the nerve at its very outset from its parent trunk, and by injuring sometimes the trunk itself, the tooth distributes by reflection, or I had better said by conduction of excitation, the pain to the nerve supplies of all surrounding structures.

"The pure 'tic' from a diseased tooth is thus produced, and in other parts of the body a neuralgic circle may have a similar causating centre, but this one illustration, as being the most familiar, will suffice.

"The points of diagnosis in cases of this character are exceedingly important, and in such points of diagnosis, the surgeon dentist is often more expert than either physician or surgeon. Without any pretence of being more conversant than my compeers with this interesting diagnostic history, I cannot let the opportunity pass, of stating in a few words, by what common-sense principles we should be guided to insure success in deciding on diagnosis in this form of the neuralgic malady.

"If, then, a tooth be found carious, and the pain be referred by the patient to the tooth as the originating cause, and if this tooth is tender, and the touching of it intensifies pain, the common-sense view is, that the tooth is the cause.

"But if it happen, and this for reasons I have given is most commonly what does happen, an extended neuralgia is not traceable to a *carious* tooth; if the appearance of every tooth be sound, other and more refined diagnostic principles are required.

"In these instances the points to be ascertained are:—

"1. Whether the neuralgia is confined to one side.
"2. Whether the patient is himself conscious or suspicious of a central cause in the teeth.
"3. Whether percussion of any tooth excites the pain.
"4. Whether the attack is brought on by exposure of the tooth to variations of heat or cold.
"5. Whether the pain is, or is not, intermittent.
"6. Whether remedies applied to the teeth are transitorily effective.

"Reasoning on these questions—if it be found that the neuralgia is confined to one side; if there is no distinct intermittence; if pressure on the nerve at its trunk relieve the pain; if local sedatives relieve the pain; and if the answer to the majority of the other queries be affirmative—the evidence is pretty clear that the cause is local, and that a diseased tooth is the local cause.

"A very good test whether a neuralgia is or is not dependent on dental mischief deeply hidden, is to direct the patient, when the paroxysm is on, to take in his mouth and bring slowly in contact with the teeth, iced water. As the cold is first felt, the pain may or may not be increased, but after a time, as the benumbing effect of the cold tells on the tooth, the neuralgic pain, if the cause of it be local, will certainly be relieved for a period, and such relief is the clearest indication of the seat of the disease.

"In this form of neuralgia, if the diagnosis be skillfully made, there is more real success in treatment than in any other. The cause is removable. Here the surgeon dentist applies his art often with satisfactory skill; effecting with one sturdy twist of his ruthless hand, what the doctor, with his whole shop on his shoulders, his alligators stuffed to boot, may vainly try to achieve in the lapse of weeks, nay, I am speaking from knowledge when I say, in the lapse of years."

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*Electricity in Dentistry.*—In an article on this subject, we find the following directions for amalgamating zinc plates, which to those who use the battery may prove of interest.

"It will be noticed that zinc or thick plates are coated with quicksilver. The object of this is to prevent the acid solution from acting on them when the apparatus is not in use. When they again require to be amalgamated, the process is performed most easily in the following manner:

"Throw into the saucer one ounce of quicksilver; take the zinc plates out of the acid solution, and rub them (while wet with the solution) on the quicksilver, which will immediately adhere to the zinc plates, and may be rubbed all over them by means of the finger or a bit of sponge. Be careful that the quicksilver does not touch the thin or silver plates, as it would quickly destroy them. When the air-bubbles (hydrogen gas) are seen to escape rapidly from the zinc plates, it is a sign that they require to be fresh quicksilvered. The zinc plates should always look as bright as silver: if they at any time look dark, quicksilver them.

N. B.—When the apparatus has been in action a week, the zinc plates should be amalgamated; but should there be noticed at any time, either before or after the week has expired, a sort of boiling in either of the pots, it is a sign that the zinc plate in that pot requires to be amalgamated, which, when done, the boiling will immediately cease. This should be particularly attended to, for the better the zinc plates are kept amalgamated, the better the apparatus will work. Indeed, if they were amalgamated after they have been only one day in action, and once each month afterwards, both the zinc plates and the acid will last considerably longer than they otherwise would: and as the operation is performed so easily, it may as well be done. If the acid solution be almost exhausted of its strength, it will be difficult to make the quicksilver adhere to the zinc. In such a case, a pot of acid should be prepared on purpose, consisting of one of acid to eight of water, by measure. The zinc plates can then be dipped in one after another and quicksilvered. The acid solution in this pot should be thrown away. Should any of the zinc get precipitated on the silver plates, giving them a leaden appearance, all that is necessary to do is to place them in a pot of acid solution like the above, one after another (without the zinc plates) until the zinc is dissolved off, which will be known by all effervescence ceasing.

"Should the apparatus at any time not work well, and the cause cannot be discovered, the best plan to adopt will be to throw away all the acid solution, to amalgamate the zinc plates, and to proceed in every respect as at first. The machine will then work well.

"The plates need not be removed from the acid solution oftener than once a month, unless the apparatus is used twice a day, in which case a fresh solution should be made once a fortnight; but the zinc plates should be kept well amalgamated as above. When the apparatus is put in action, the regulating apparatus should be placed on the top of the box, with its index and the screws of the box in front of the patient.

"When the apparatus is in action, thousands of air-bubbles will be seen to escape from the thin plates, but not when the apparatus is not in action; all should then be perfectly still. The plates need not be removed from the acid solution after using."

And again, on the same subject, Dr. T. Purland gives the following hints and directions in the use of this agent:

"First. The operator is no judge of the force of electricity required in each case, exclusive of the patient, the patient alone being able to determine the amount of electricity he or she can bear.

"Secondly. The force must be defined by the patient as a pleasant-flowing stream, not a shock or succession of shocks.

"Thirdly. The instrument used—key or forceps—should be placed on the tooth, and the tooth firmly grasped, before the foot is taken off the spring-board; and when the circuit is complete, the instrument should rest on the tooth for a few seconds previous to extraction.

"This is all that is required to enable a dentist, fully acquainted with his profession, to extract any tooth or stump with comparatively little or no pain."

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At the monthly meeting of the College of Dentists, March 1st, Dr. Purland read a very remarkable paper "On Dental and other Operations in the Mesmeric Trance," in which he gives a history of mesmerism, from the time of its resuscitation by Antony Mesmer, (a Doctor of Medicine of the University of Vienna,) about the year 1770. In the course of the history he makes some very hard hits at the regular Faculty; referring to the case of their opposition to the great Harvey, and their indisposition to test anything that does not square with their preconceived notions, or that would involve a change of sentiment on their part.

After alluding to the prominent names connected with it, he concludes by reporting a large number of astonishing operations and cures, among which he gives the extraction of some 250 teeth, under this influence.

From the proceedings of subsequent meetings of the College, we learn that the intentions of the original founders of the organization are now likely to be carried out; or, in other words, that they are about to go back to first principles, and establish the College upon the basis originally designed, from which unfortunately they allowed themselves to swerve in the laudable effort to unite all interests, and thus secure the hearty co-operation of all, by an amalgamation with the Odontological Society. But in this they have been grievously disappointed, and their interests and efficiency having suffered, this step of a thorough organization is about to be decided upon, and we shall now hope to see things progress with the College of Dentists, and a regular Dental College established, with power to impart instructions and confer degrees, independent of the Royal College of Surgeons or any other foreign body.

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*The Dental Review*, (London,) April.—In reading Dr. Richardson's lecture, found in this number of the Review, with the design of making some extracts, we have met with more difficulty than was anticipated, in determining which was most suitable where all is so palpably useful to the dentist. We need, therefore, make no apology, we are sure, for the space occupied by the following lengthy extract from his lecture, entitled "*Dyspepsia, Rheumatism and Gout, in their relations to some Abnormal states of the Teeth and neighboring organs.*"

"This, then, is the summary of our general knowledge of the three diseases named in our list; the simple dyspepsia may be due to organic structural change in the stomach, or to derangement in the digestive fluids. The rheumatic affection is due to the presence of a blood poison of acid reaction, and which acts mainly on fibrous tissues, on the lining of joints, and the sheaths of nerves, the acid either being the lactic acid, or an acid strictly analogous. The gouty disposition is also due to an acid, which elects fibrous tissue for its manifestation as a poison; but the acid is of different kind; it is uric acid, one of the matters normally carried out of the body by the urine, at the rate of little more than seven grains in the twenty-four hours.

"Without such general knowledge as these facts afford us, it were impossible either to understand or remember the relationship which exists between the dental diseases and the three forms of disease with which we are this evening specially concerned.

"There are at least three ways in which dental diseases are connected with dyspepsia.

"Firstly.—Dyspepsia may give rise to severe temporary toothache by a reflex act.

"Secondly.—Dyspepsia may cause toothache by direct action of a vitiated fluid upon a carious tooth.

"Thirdly.—Dyspepsia, chronic in character, by keeping up an abnormal nutrition and an abnormal salival secretion, may excite tendency to the development of caries.

"The first of these relationships is brought out ordinarily in persons who, from irregularity of life or other causes, are the victims of chronic indigestion. In these instances there is, I believe, in all a carious tooth, or an irritable tooth, a tooth, in a word, ready made for an ache. The symptom follows some particular act by which the stomach is overtaxed; the patient is often himself conversant with and describes the cause. If he is not so conversant, the general symptoms unfold the fact. The patient is excitable, his tongue is loaded, his breath offensive, and his appetite bad. He tells, perhaps, of sleepless nights and disagreeable dreams. Not uncommonly he connects the commencement of the toothache with this sleeplessness or disturbed sleep. He wakes from a distressing dream, in which he was the supposed victim of some torture, to find the circumstance verified in an intolerable pain in his grinders, and since then the pain has been pre-eminent, and nothing relieves it.

"Or it may be that the tooth, previously irritable, has been started into actual pain by some slight excitant, which prior to the predisposition had no such effect. A draft of cold water, a flush of cold air, the effect of pressure from a hard morsel of food; any simple thing of this character may prove the direct agent in setting up the suffering.

"The pain is intense in character, and fixed in one particular spot; local remedies afford no relief; nay, they sometimes aggravate the evil. Extraction relieves the pain from one tooth to transplant it to another. That which most certainly relieves is a vomit, a sweat, or a sharp purge. The junior practitioner in operative dentistry cannot too early make himself acquainted with this variety of odontalgia. He must remember that the pain produced is reflex, that it is central in its origin, and that a tooth need not always be sacrificed to insure relief.

"The influence of dyspepsia in causing toothache by the medium of a vitiated salival secretion may be co-existent with the preceding condition, or independent of it. In the instances where this cause alone acts, the tooth affected is almost invariably carious, and the dyspeptic symptoms, though present, are less acute in degree, and in some measure less fairly defined. In these instances the bowels are generally constipated, the appetite various, the tongue flaccid, and the body enfeebled. The teeth generally are disordered, and often loaded with phosphatic deposit. Frequently, too, a small irritable ulcer is met with in some part of the mouth, in the inner lining of the cheek, or on or beneath the tongue. The salival secretion is free; it gives to the ulcer pain when it touches it, and the fluid is of acid reaction.

"In these examples the pain is excited by the direct contact of the salival secretion, and the pain consequently is often relieved by the simplest local measures. What excludes the saliva, or neutralises it, acts best; if one tooth is well cleansed, and then well stopped with simple unpermeable stopping, as solution of mastich on fine lint, gives instant relief and continued relief, until such time as the secretion undermines the pledget, and the sensitive surface is again exposed to the irritant.

"The influence of dyspepsia in producing caries is exerted in two ways—first, in arresting the nutrition of the tooth, and secondly, in giving rise to abnormal salival secretion. The first of these causes is limited in its effects according to the period of life. It is limited, I believe, to the time of the first dentition extending over the period, *i. e.*, when the deciduous teeth are being exposed and the permanent set are being developed. Amongst the children of the poor, and not unfrequently amongst the children of the upper classes, this agency is too frequently at work, and while it extends to other parts of the body, shows itself especially in the dental organs. The dyspepsia thus induced is mainly the result of an improper feeding. The child deprived of that nutrient fluid, breast milk, so admirably suited by its composition for the nourishment of all the tissues, osseous, muscular, glandular, nervous, is fed with articles of diet which the stomach can neither digest nor the body assimilate. The two important elements of the food, the lime and the nitrogenous constituents wanting, and starchy matter only supplied in shape of tops and bottoms, and other like absurdities, there is a constant waste of the tissues primarily formed, with no corresponding supply. Hence, of necessity, a suspended nutrition and continued waste, under which term is meant simple death or destruction.

"Children thus improperly nourished shed their first teeth with these organs often carious throughout, and cut a second set, which are but an indifferent edition of the first.

"The dyspepsia, thus effective in its early influence on the dental structures, is in itself afterwards sustained by the malady to which it administered. For proper food afterwards supplied, and improperly masticated, keeps alive the original evil.

"Next to the influence of syphilis and mercury, there is no cause so fatal in its effects on the teeth as infantile dyspepsia.

"After the permanent teeth are once formed and developed externally, there does not seem much evidence to support the view that simple dyspepsia induces destruction of dental structure by pure arrest of nutrition. The dyspeptic tendency may, indeed, be long marked and well marked, without much important change in the nutrition of structures which are undergoing rapid metamorphoses.

"The tooth structures, therefore, which of all others possess what may be called persistency of growth, are sufficiently fed by blood from behind, so that any influence exerted on them must be by the direct action of perverted external fluid secretions. A depraved salival secretion may, indeed, exist, and does exist in ill-fed children during their first dentition, and assists not a little in favoring the caries which the faulty nourishment sustains. But in adults the secretion would clearly act alone and solely.

"A great deal of discussion has recently taken place in the Dental profession as to the real influence of depraved salival fluid on the teeth, and as to the modification which the saliva undergoes to produce destruction of the tooth structure. The subject is still open for inquiry, and so far as I can learn is only as yet problematically complete in the following particulars:

"That the reaction of the normal saliva is alkaline.

"That the saliva may have an acid reaction in some diseased conditions.

"That an acid saliva has a decomposing effect on tooth structure.

The acids, which are sometimes found in the saliva during dyspeptic states, have not as yet been carefully examined. Lactic acid, acetic acid, and hydrochloric acid have all been stated as present, but the evidence is conflicting, the method used for the detection of the acids is unsatisfactory, and the symptoms present in the cases where the acid secretion was evident, are not given in any instance with sufficient care to render the observations reliable as scientific data. It is quite probable that all, or any of these named acids, may be present, for they are digestive acids of the gastric digestive fluid, and are formed in abnormal quantities in diseases where the assimilative processes are impaired, and they may readily be supposed as susceptible of elimination from the salival glands. I cannot say much about these acids specially, but I know the broad fact, that in many cases of simple dyspepsia, where there is constipation of bowels, where the mucous membrane is inclined to be apthous or to be ulcerated, and where the appetite is irregular, that in such cases an acid salival secretion is the persistent fact. I believe, too, that caries may be induced by a prolonged maintainence of this condition, and it seems rather more feasible that such acid action is the cause of dental gangrene, than the presence of any foreign organic matter lodged in or between the dental organs.

"The effect of the mineral and vegetable acids on teeth, and especially on the enamel of teeth, has been studied with some care, but here the research again demands another and more elaborate series of inquiries.

"The results of Westcott's experiments, as recorded by Dr. Harris, while most interesting in so far as they go, can hardly be said to bear on the question before us. He, Westcott, made out, however, the following facts.

> "That both vegetable and mineral acids act readily upon the bone and the enamel of the teeth.
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> "That alkalies do not act upon the enamel, but that caustic potash will readily destroy the bone by uniting with its animal matter.
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> "That salts, whose acids have a stronger affinity for the lime of the tooth, than for the bases with which they are combined, are decomposed, the acids acting on the teeth.
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> "That vegetable substances have no effect upon the teeth till after fermentation takes place, but all of them after fermentation act readily after this acid is formed.

"At a meeting held at this College on the third of November, last year, the subject of this effect of acid solutions on the teeth was ably brought forward by Mr. Thomson, of Camberwell, and his remarks gave rise to a sound and practical debate. Mr. Thomson's experiments are strictly corroborative of the view that even feeble acid solutions destroy the enamel by chemical solution.

"We may then safely accept the last proposition that an acid solution has a powerful decomposing effect on the enamel of teeth. Coupling this former fact with the circumstance of an occasional abnormal acid saliva, the relation of caries to dyspepsia through the salival excretion may be allowed in some measure to stand in the light of cause and effect. But the hobby must not be ridden too far, or it will deceive and break down, and the notion cannot be too speedily combated that caries is in all cases produced by such chemical action. This were as absurd as to trace all cases of gangrene of the limbs to the effects of ergot of rye or diseased grain.

"Nay, I would say rather, that it is only in extreme cases of prolonged dyspepsia, when such alteration of the saliva occurs as leads to caries by chemical solution.

"Rheumatism, in its relation to diseases of the dental structures, may take three positions.

"In an acute attack it may sieze on the muscles of mastication, or on the fibrous lining of the maxillary articulation.

"During the existence of the rheumatic diathesis, the specific rheumatic inflammation may affect the periosteal membranous connection of the teeth and alveolus.

"During the same diathesis the nerve sheath of the fifth pair may be the seat of the inflammatory demonstration.

"In cases of acute rheumatic fever, I mean in cases even of the severest kind, the muscles of the jaw and the maxillary articulation enjoy an immunity which is striking as compared with the facility with which other and analogous textures are implicated. Yet these parts do not always escape, and it is well to bear in mind that examples where the motive organs of mastication are attacked by rheumatic inflammation are often cases in which the general symptoms of the disease are least developed.

"I saw a case of this kind on one occasion which gave me for several days considerable alarm.

"A man was brought to me, with what was believed by his friends to be locked jaw. It was a locked jaw, but not a trismus locked jaw. The teeth were firmly clenched, the articulation impossible, and deglutition impossible. There were signs of much pain, and there was some swelling in the cheek and about the ramus of the jaw. The disease had been preceded by a cold, but the man had injured his toe a few weeks back, a circumstance which made the diagnosis complicate. The symptoms continued for nearly two days, during which time all attempts to open the jaws were unavailing. The case resolved itself into one of three forms: it might be an example of hysterical trismus; it might be an example of true trismus; it might be an example of rheumatic affection of the muscles and joint, to which latter view the antecedent febrile excitement and the swelling lent their powerful testimony. The mystery was cleared up by the appearance of a rheumatic inflammatory swelling in the wrist. Scarcely had this appeared, when a similar swelling occurred in the ankle, while simultaneously with these demonstrations the fixed maxillary muscles partially relaxed, rendering deglutition possible. The symptoms now fully proclaimed, anxiety was removed, and the case terminated as one of mild arthritic rheumatism.

"I should add, however, that the jaw has never fully regained its full action, and that the speech is imperfect in some degree.

"The pain of rheumatic kind which attacks the periosteum or connecting membrane of tooth and alveolus, is very characteristic, and is easily defined from the pain of the odontalgia. The pain is dull, heavy, and yet severe. It is a steady pain, and it is a pain which conveys to the mind the idea of compression of the tooth. In inflammation of the dental pulp an opposite sensation is described, the tooth is spoken of as if it were bursting from its bonds; here it is gripped closer by its bony wall, and the patient, as I once before expressed, is quite conscious of an alveolar cavity without any study of the skeleton. The pain is attended with febrile excitement, and often with heat and swelling of the gum. Eventually, some other indication of rheumatic mischief shows itself, some swelling of elbow, or knee, or wrist, and the diagnosis confirmed.

"I have, however, seen the rheumatic toothache occur as the only local manifestation of a true but mild rheumatic paroxysm. In such instances the affection will linger about for many days, being uncertain as to its seat in the jaw, now being in one tooth, then in another, and again in the maxillary articulation. Sometimes, too, in this affection, there is a temporary transference of pain from the tooth structures to the ear. When this transference takes place the diagnosis is very much simplified.

"Rheumatic neuralgia is the last variety of the rheumatic local affection which concerns us on this occasion. In this case the fibrous sheath of the nerve is the structure implicated. The disease may be developed in the course of any nerve trunk, and of all others is, perhaps, most common in the great sciatic.

"But the fifth pair may be the track selected, and the fifth pair may be so selected in its track, as either to suffer over a wide expanse of distribution, 'tic,' or in one particular branch, as a dental branch, neuralgiac odontalgia, confined to one or more teeth, being the upshot.

"In the rheumatic neuralgia, the pain being the result of excitation in the extremities of the nerves, is modified by local measures. Narcotics and warm applications often relieve—changes from heat to cold, or suddenly from cold to heat, always increases the mischief.

"But the point of diagnosis is the variableness of the seat of the pain. The poison being free as the blood, roves with the blood, and wheresoever it finds the most desirable accommodation there it rests. When this variability is met with, when the local character of the pain is discovered, so that the idea of hysteria is excluded, and when the ordinary febrile symptoms indicative of a specific rheumatic poison are present, the diagnosis can rarely be overlooked.

"The relationships which exists between gout and toothache, and gout and neuralgia, are all important. These relationships are insidious, and have been but recently recognised. Yet they form the most common connections in the links of diathesis and local disorders.

"Up to the present time, in speaking of gout and thinking of gout, we have been too much inclined to associate the disease with one unfortunate organ, the great toe. True it is that this member is often the seat of the disease, and true that in extreme cases the toe is more severely affected than most other parts. But in case after case, the medical man who is on the look out, finds that long before this extreme indication of the pre-existent diathesis occurs, the story is out in the tale of some slighter and less definite ache.

"A man in the first period of the middle age, accustomed to good fare, late hours, and indoor life, was sitting at the wine table in the midst of friends and merriment. For some reason which was not very explainable to him, he took but little part in the mirth; he felt a drowsy low-spiritedness and a slight nausea. Then he had a singing sound in the ears, and some degree of pain in the ear. Suddenly the pain moved in position and increased in intensity. It moved to one particular tooth, and the agony was irrepressible. A strong man before, he was struck down now. He left his friends, and unable to bear the torment, went to the nearest dentist for relief.

"The dentist he called on, a conscientious man, could find no tooth carious, and was opposed to extraction. But the patient, fixing on what he supposed the faulty tooth, insisted on removal, and a sound tooth was drawn. Strange to say, the extraction seemed to give relief, and a dose of physic completed the cure for the time. A few weeks afterwards, under circumstances almost identical, the same gentleman had a second seizure; but now the seizure, equally severe, was in the ball of the great toe. Quite unconscious of its meaning, this brief attack, for the pain subsided in a few minutes, passed without comment; but eventually another return of the pain in the toe ended in an outspoken and obstinate attack of gout. One day when I was visiting him, and talking to him about his symptoms, asking him, indeed, what premonitory signs had warned him of his diathesis, he cut me short with the question,—'Doctor, did you ever see a gouty tooth?' I said 'no, I think not.' 'Then,' said he, 'I'll show you one,' and forthwith he produced the molar, and gave to me its history as I have now recorded it.

"I would point out this class of cases to the junior dental practitioner with all the care I can bestow on it, because it belongs even more intimately to him than to the medical man. To the dentist the first application is made in such examples as I have here supplied, and the recollection of gouty odontalgia should not desert him. It shows at once the accomplished man to make out a ready diagnosis in instances of this description; and really the diagnosis is not difficult. The circumstances under which the pain is elicited, the character of the pain, the accompanying dyspepsia, the free habit, the healthy tooth, and the inability of the patient to fix determinately on the aching member, are sure indications in the majority of cases of the disease which is presented for treatment."

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*The London Dental Review* for May, contains another of those interesting lectures from B. W. Richardson, M. D., "On Diseases of Infancy and Childhood, as dependent on and influencing Dentition," from which we make the following extract, regretting that we have not room for the whole lecture:—

"In the list of diseases already given we have surveyed all disorders which without doubt may have a dental origin. It were well, therefore, to rest content with the certainties, and so will we rest.

"In the treatment of different diseases resulting from dentition, the art of the dental practitioner, though limited in its application, includes in the majority of cases the key to success. In all instances, where the symptoms I have described attend the first dentition, the primary point of practice is to examine the gums, and freely and boldly to set every irritable gum at liberty by the lancet. I cannot but agree with Mr. Fox that the operation of lancing the gums is often neglected in dentition from a timidity which is as weak as it is culpable. The operation gives but little temporary pain, (for the gum is not richly supplied with nerves,) and the evil consequences resulting from it are comparatively none. The friends of patients often request that the operation shall be deferred for the tooth to present itself more prominently, under the impression that if the gum should heal again the cicatrix will offer great opposition afterwards; this I believe to be a delusion. I have frequently incised gums and given much relief by dividing congested vessels, and these gums have healed up, and teeth have made way again without any greater resistance than in gums undivided. Indeed, the new and annealing matter possesses less resistance as a structure than the original gum substance.

"Different practitioners have different ways of making the incision. Some incise the molars with a crucial cut and the others with a straight incision. I think the single incision is in all cases the most practicable, and equally efficient. An incision in the line of the tooth for the molars, and an oblique incision across the bodies of the smaller teeth, answers every purpose.

"The only cases where hesitation is required as to the propriety of the operation are cases where the hæmorrhagic diathesis is unmistakably present. Here the operation is unadvisable. In such instances, if the gum is very resistant, the destruction of its upper part may be greatly expedited by touching the resisting portion with the caustic point. I have done this on two or three occasions with excellent results.

"In those examples which have been before us where deciduous teeth stand in the way of the free evolution of the temporary set, there can be but one line of practice, viz., complete removal of all the obstacles by extraction. The shedding teeth have served their office, and are better away altogether."

At the monthly meeting of the Dental College, held April 5th, Dr. Blandy, of the United States, read a very lengthy paper on cheoplasty, and for which, he received a vote of thanks.

We notice, with much pleasure, a very instructive article in this Journal, from Mr. James Robinson, on the subject of Irregularities of the Teeth, which is copiously illustrated.

His long silence, in the way of contributions to home journals, induced the fear that the dissentions and difficulties attending the efforts made to bring about a proper organization of the profession in England, in which there should be unanimity and perfect harmony, had caused a withdrawal on his part, as well from any public participation in the literary and scientific, as he has from the societary interests of the profession; and we are, therefore, pleased to discover that our fears are unfounded; and further, that the pages of the *Review* will be enriched by his contributions to dental science.

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*The British Journal of Dental Science*, April.—This issue of the Journal is chiefly filled with reports of discussions on the vulcanite process, in the Odontological Society, and at a meeting of dentists convened at the instance of Dr. C. S. Putnam, at Hanover square rooms, April 5th.

The discussions took the widest range, and included every possible phase of the subject—the nature and composition of the materials, the form and cost of the apparatus or boiler, the style of the teeth most suitable, the validity of Mr. Goodyear's patent, and Dr. Putnam's rate of charges for rights and instructions; but, in all, there is nothing claiming special notice, or that would prove particularly interesting or instructive to American practitioners.

The President of the Odontological Society, at the meeting held April 2d, spoke very feelingly of the re-interment of the remains of John Hunter in Westminster Abbey; and in alluding to the intention to erect a monument to his memory, suggested that the Society should make a suitable contribution toward that object; after which, Mr. Tomes was appointed Treasurer of the society fund.

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*The American Journal of Dental Science*, April.—In a communication to this journal, Dr. Thompson recommends the following method of forming clasps:—

"Discarding wandering, we will present the reader with our method for forming a perfectly fitting clasp, broad or narrow. We in the first place secure an accurate form of the tooth to be clasped; next proceed to make a pattern of the clasp desired; we next cut from a piece of platina (rolled quite thin) a clasp; we burnish this clasp to the form of the tooth, carefully removing the same from the model; we place upon a piece of coal, placing through the imaginary centre, a tack; we fill the enclosed space with sand and plaster; borax well the surface; cut scraps of gold plate as we do solder, place them upon the clasp frame, and with the blow-pipe run them over the frame—build up the clasp to the thickness desired. By this method a perfectly fitting clasp is formed, which will need no bending to adjust it. We have formed our clasps as described for three or four years, and we conceive that a tooth cannot be injured when a clasp is thus formed—the adaptation being so perfect as to exclude all foreign matter from penetrating between the tooth and the clasp; it is, in fact, almost impervious to the fluids of the mouth."

*The Dental Register of the West*, June.—We here find reports of the proceedings of the "Cincinnati Association of Dental Surgeons," also of the "Third annual meeting of the Northern Ohio Dental Convention." At the former the project for the formation of a "National Association of Dentists," was fully discussed, all apparently agreeing that such a measure would be conducive to the interests of the profession. At the meeting of the latter, the following subjects came up for attention, and were ably discussed during the two days the Convention was in session:—1. Best Means of Correcting Irregularities of the Teeth. 2. Treatment of Exposed Nerves. 3. Treatment of Alveolar Abscess. 4. Filling Teeth and Fangs. 5. Mechanical Dentistry. 6. Miscellaneous.

*Professional Ethics.*—Dr. Taft, in an article on this subject, says:

"It is certainly better, under all circumstances, where a man is dependent upon his profession for fresh supplies in regard to modes of practice, to be liberal, even if he should give more than he receives; but in the present stage of the dental profession, that is impossible. Again, under all circumstances, we should concede to every member of the profession full credit and acknowledgment for all that he has. This has not always been done, but time is certainly making an improvement in this respect. Private personal feelings should never cause any one to do injustice to the attainments and abilities of a professional brother. This is sometimes done in an indirect, but very efficient manner. There are some in the dental profession, as in other professions, who, when anything new is presented to them, affirm, or insinuate that they had accomplished the same thing long before, if not in exactly the same method, by one very similar. Ordinarily, when such difference comes to be investigated closely, it is found to be much greater than would be inferred from the remarks; and this is generally true of the thing accomplished, as well as of the method of accomplishing it. Operators in the same vicinity should, as nearly as possible, adopt a uniform rate of fees; this, justice to all parties demands. No dentist can, with justice to himself, make his fee rates less than those of an honorable competitor, unless his operations are inferior in character; then his fees should certainly be lower than those who do good work. Generally, under-bidding is an evidence that the operator has not the ability or inclination to make better work. If he feels that he cannot perform as good operations as his neighbors, then his charges should be less than theirs. A dentist's fees may be regarded as a very just criterion of the character of his work. Operators in the same locality will harmonize better, can elevate the character of the operations at pleasure, and do quite as much business, and be better remunerated for what is done, and give more satisfaction to the patients, where fee bills are uniform. When it is otherwise, patients are always suspicious, or dissatisfied. Fearful on the one hand, lest they are imposed upon in the character of the work, and on the other, lest they are imposed upon by the fee charged, and thus they are kept in a state of vacillation, not knowing whether there is justice in the work performed, or in the fee charged. He who proposes to perform an operation for less than his neighbor has proposed, when he is aware of the fact, admits that he intends to make an inferior piece of work, or that his neighbor is taking advantage of his patient, or, in other words, defrauding him."

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*An Address to the Graduates of the Ohio College of Dental Surgery, Session* 1858–59. BY W. W. ALLPORT, D. D. S.—Valedictory addresses are necessarily of a local and personal character, but the one before us is perhaps less so than is usual.

We select two paragraphs for the wholesome advice they contain on professional independence, and the best way to secure it, and on that prevalent mistake of "warranting work."

"It is necessary that you should have a manly independence; and to feel this you must be out of debt. If the kindness of friends, or the forbearance of your teachers, has furnished you with the means of education, or assistance to enable you to enter upon the discharge of your professional duties, you ought to repay them from your very first earnings. No man has a free will and cheerful heart, who goes to his work the slave of debt. It fetters at every step of life, and leaves the door open for continual misunderstanding, and may sever the closest friendship. A prompt paymaster must be a good collector. Success in any business depends very much upon a careful attention to bills payable and bills receivable. You will also find that work which is paid for, will fit better, and last longer, than work unpaid for. With some patients, few things stop the uneasiness of a newly filled tooth, or remedy the defects in a new set of teeth, or add to his reputation like the honest payment of the dentist's bill. Few callings give greater room for misunderstanding than our own, but you will find that honest work for honest people will give but little trouble.

"It is a common fault with young practitioners to promise too much. Let me caution you against this; for you will find that *all* are liable to failures. You ought to do your work well, but never *warrant* it. When the real benefits of dentistry were not understood or acknowledged by the public, perhaps it was proper that the dentist should guarantee a result which was doubted by a majority of even intelligent people; but now the intelligent regard dental operations as not only useful, but indispensible to health and comfort, and no such necessity for a guarantee now exists. The patients who come to you, acknowledge by their coming, their belief in the benefits of dendentistry and in your skill. You occupy the same relation, in this respect, to your patient, that the physician does to his. The honorable physician never agrees to cure his patient. He knows that if treated ever so well, the patient's own neglect or carelessness may make that treatment useless and even injurious. The *Quack* will not hesitate to guarantee a cure of the most hopeless case, always *provided* he is paid *in advance;* but the consistent physician, honestly tells the probability of success, and then simply pledges his best energies and skill; and on these he relies for business and reputation. No matter how well the dentist does his work, its durability will depend very much upon the patient's care. If you warrant it, they will be very apt to transfer the responsibility from their own shoulders to yours. The value of your work depends upon the action of both; and if either fail, the work will fail. On your part, the honor of a man and skill in your profession, call for the very best work. On the part of your patient, care and cleanliness must be observed. You will find it to be of great advantage, especially with children, to request, and *insist*, that they should see you often. You ought, then, as far as possible, to insist upon the thorough cleanliness of their teeth; and if they do not attend to this, your work will fail in spite of the best operations."

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*The Dental Register of the West, March.*—

"'The man who hath no cleanness in himself,
Nor is not moved toward washing with clean water,
Is fit for gutters, still-slop pens, and fleas:
Let no such man be trusted!'

"And Shakspere never uttered a truer sentiment. And it may be here remarked, incidentally, that Mr. Shakspeare was generally about right in his observations about men."

The above we find in an article entitled "Cleanliness," in the above named journal, commencing on page 347, and desire to ask, are we to understand, as the language implies, that the quotation is from "*Mr.*" Shakspeare? and if so, where it can be found in his *published* works? We have a suspicion that the author of this elegant stanza is a Cincinnati "Mr." Shakspeare, as we have no evidence that *still-slop pens* was the institution in his day that it is in ours, and especially as we find it in Cincinnati.

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*Here is* another instance of the long preservation of human teeth:—

"A very interesting discovery has been recently made at the very gates of Paris, viz: the tomb of a Celtic chieftain, interred more than twenty-five centuries ago, with the remains of his wife, his horse and his armor, in the peninsula of St. Maurles-Fosses. Near this part the tumulus enclosed two skeletons, in a very tolerable state of preservation, lying on their faces, the heads being slightly turned towards the south-east. That on the left side, the body of the warrior, was placed in a very regular position, the head resting between the two hands; the jaws were furnished with nearly all the teeth, twenty-five of a beautiful whiteness, with the enamel preserved."

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*A Curious Case.*—We often notice suits brought against physicians for mal-practice, but the following, which we find in a newspaper, is the first we ever heard of against a dentist:—

"A curious law suit, brought by a lady against a dentist, was tried a few days since at East Corinth, Maine. The dentist pulled the wrong tooth, relieved Mrs. Eliza Butler of a sound molar, instead of a decayed one, and she sued him for $20 damages. The defendant won, and the lady retired."

## Selections and Abstracts from Medical and other Journals.

BY S. S. WHITE.

"*Psychological Knowledge gained through Chloroform.*—The following letter from CHARLES KID, M. D., we copy from the *European Times:*

"'It is only within a few weeks that it has been clearly proved that the endowment called *common sensation*, the great root of consciousness, as shown by Locke, Liebnitz and Schlegel, is not psychologically the same as the sense of *touch*, with which Dr. Snow and others have confounded it. Thus a man may have a red hot iron applied to his arm or leg under the influence of chloroform; he feels no pain, but he feels the iron as an affair of *touch* streaking out lines on his skin. The bearing of this fact on the phenomena of insanity, sleep and dreams, is most extensive. In the same manner, a woman in labor, with proper doses of chloroform, feels no pain, but is quite conscious of the process of parturition *quoad*, the muscular sense (that would be agonizing cramps otherwise) going on as usual. This has only recently been shown by M. Brown Sequard to depend on the fact already stated, but not suspected by Dr. Snow, who chiefly experimented on rabbits and dogs; indeed, a new world has, since his death, been opened up as regards the psychology of chloroform in relation to ordinary sleep, common sensation, touch, dreams, sympathetic action, emotion, reflex action of the sensorium, or soul itself on the body, etc., so that the subject is only in its infancy. I may say, in conclusion, as a natural corollary from these discoveries, Dr. Snow's opinion as to one cause of death from chloroform is not held by good physiologists. Mr. Coates makes out five causes. Mr. Coates says, too, ether is much more dangerous than chloroform. The subject is one of vast popular interest.'"—*Med. and Surg. Reporter.*

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"*Idiopathic Abscess of the Tongue.*—Dr. HOLMES STEELE reports in the *Oglethorpe Medical and Surgical Journal*, a case of this rare condition. The tongue and the surrounding tissues were extremely tumefied, but the suppuration occurred on the right side of the mesial line. The general system of the patient, a clergyman aged fifty-five years, suffered severely until effectually relieved by a free and deep incision evacuating the pus.

"The case illustrates the rapid course of the glossitis, which occurred without any apparent cause, terminating in abscess in thirty-six hours, and shows the propriety of the speedy resort to the only real relief in such cases, *free and deep incision.*"—*Ibid.*

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"*Sulphur as a Dentrifice.*—Dr. C. W. WRIGHT says, in an article on this subject in the *Louisville Medical Gazette*, that the common flowers of sulphur of the drug store possesses advantages over all other substances on account of its antiseptic properties; its exerting no injurious action on the teeth, either chemical or mechanical; its ready preparation and cheapness. The sublimed sulphur must be freed from any acid which it may contain by agitating it in water in which a small quantity of carbonate of soda has been dissolved, and then freed from the soda by repeated washing in cold water."—*Ibid.*

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"*Persulphate of Iron as a Hæmostatic.*—We abstract from the *American Journal of Medical Sciences*, a portion of an article condensed from the *Pacific Medical and Surgical Journal.* Dr. H. H. Toland records three cases in which vessels of considerable magnitude were wounded, in which he employed with entire success the persalt of iron, recommended as a hæmostatic by M. Monsel, surgeon to the Military Hospital at Bordeaux.

"Its action on blood and albumen is powerful, and on blood somewhat peculiar. It produces with the latter a voluminous clot, absolutely insoluble, which continues to enlarge, for several hours after its application, and becomes quite hard and firm. The following is the formula by which this salt is expressed: $5\ SO^3,\ 2\ FeO_3$.

"This salt, (Dr. Toland states,) if applied to a superficial wound as soon as made, not a drop of blood escapes, and no pain results from the application. It acts by producing instantaneous coagulation of the blood, and will be found invaluable in hemorrhage from the mouth, nose and throat, when it is impossible to ligate the vessels, and may be equally efficacious in allaying uterine hemorrhages, either active or passive. In solution, it could be readily applied: it is deliquescent, and dissolves speedily in water."—*Med. Chron.*

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"*Monsel's Persulphate of Iron.*—By Jos. C. Hutchinson, M. D. —Having recently used the above agent (which was introduced to the notice of the profession, by M. Monsel, of Bordeaux,) in the following cases, with the most gratifying results, I present them as some evidence of its superiority as a hæmostatic.

"Case 1.—While assisting Dr. Isaacs to perform Cooper's operation of excising a portion of the scrotum for varicocele, on a patient in the Brooklyn City Hospital, I applied, with his permission, the persulphate to arrest the copious capillary hemorrhage which always occurs during operations on this tissue. Instantaneous coagulation occurred with satisfactory results.

"Case 2.—In a case of profuse epitaxis caused by a blow on the nose, which probably produced rupture of some of the larger capillaries, a narrow strip of lint saturated with the solution, was introduced into the nostril, which at once produced a hard coagulum, and arrested the hemorrhage instantly.

"Case 3.—In this instance the effects of the persulphate were most marked. A few days since, while Dr. Minor was operating for necrosis of the femur on a patient in the Brooklyn City Hospital, an artery of considerable size was cut and we were about applying a ligature, when the doctor suggested a trial of Monsel's solution, which at once arrested the hemorrhage, very much to the surprise of all present.

"The article which I used was prepared by Dr. E. R. Squibb, lately of the United States Navy, who, the profession will be glad to know, has recently established a laboratory here for supplying the United States Army and the medical profession generally, with pharmaceutical chemicals of such a standard of purity as has not hitherto been accessible to them."—*New York Jour. of Med.*

"[The article above alluded to is not correctly named. As we gave it its title, we shall claim the privilege of making the following correction:—

"It is known as 'MONSEL'S SALT.' The agent is not a '*persulphate*' of iron, and if Mr. Squibb will look at the formula, he will find it hypersulphate of the sesquioxide of iron: $5\ SO^3.\ 2\ Fe\ O^3$. We will also add, that to obtain its full hæmostatic power it should not be used in solution, for in that form its principle power is lost as a hæmostatic. The dry salt containing one equivalent of water, is the most active form for this purpose.]"—*Pacific Med. and Surg. Jour.*

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*On Voltaic Narcotism.* By B. W. RICHARDSON, M. D.—"On February 4, Mr. Kempton, of Princess street, Hanover square, gave me an opportunity of trying this narcotic system in a case of tooth-extraction. The tooth was the last upper left molar, and very firm. It was hollow externally, and the cavity admitted of being easily filled with a dossil of lint, steeped in a narcotic solution composed of five minims each of tincture of aconite and chloroform. Mr. Kempton, after introducing the narcotic, connected a fine excavator with the positive pole of the battery; and with the point of the excavator pressed on the lint, while I placed the negative pole, tipped with moistened sponge, externally, immediately below the lobe of the left ear. Our apparatus being imperfect for the purpose, and the application of the poles being dependent on the hands, contact was sometimes broken, and occasional slight shocks were given, of which the patient has since complained. These were accidental, and avoidable in another case. After an application of five minutes, I removed the poles, and we found that a sensation of numbness had commenced in the tooth, and extended superiorly and laterally, from the tooth as a centre. A new dossil of lint, again saturated with narcotic solution, was inserted in the tooth, and the poles reapplied. In two or three minutes, the sensation of shock was not felt—even when contact was intentionally broken. After seven minutes, the poles were removed, and Mr. Kempton extracted the tooth without the patient experiencing the slightest sensation. He explained that he could hear the breakage between the tooth and its socket, but without the merest trace of pain."—*Ext. Med. News.*

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*Influences of Occupation on Health.* From the *Sanitary Review.*—*Fur-Dyeing.*—"A third and serious mischief in fur-dyeing is produced by the inhalation of the dust during the beating of the dried skins which have been previously soaked in the copperas solution. The dust thus discharged produces constant irritating cough, and the teeth are almost invariably affected by it; these organs are slowly rendered brittle and generally carious. The grinding down of the color stuffs from the crystalline to the pulverulent state leads to similar evil consequences. Thus in every part of this business the workmen inevitably suffer."—*Ibid.*

"*Clinical Lecture on Nœvus, delivered at University College Hospital.* By JOHN ERICHSEN, ESQ., Professor of Surgery, &c.—Nævus is, perhaps, the most common congenital malformation or disease requiring surgical interference, and probably the most frequent cause of operations on young children. The methods adopted by surgeons for the removal of this affection are very varied; but however much they may differ in detail, they are all referable in their mode of action to one of three principles, viz:—1. Those means, such as the seton, subcutaneous section, vaccination, and the injection of various astringents, which act by exciting inflammation, and eventually induce plugging and obliteration of the vascular net-work that constitutes the nævus. 2. Caustics; the electric and the actual cautery, which act by destroying the morbid structure. And, 3. Its removal by means of the knife or ligature.

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"*Nœvi of the Face* are of very common occurrence, and usually cause so much disfigurement, that their removal by surgical means requires to be undertaken whenever it is practicable. The treatment to be adopted necessarily varies greatly, according to the nature of the nævus, whether cutaneous, subcutaneous, or both, and especially according to its situation; the same plan which may be advantageously adopted in one part, being altogether inapplicable in another. We shall, accordingly, consider the treatment of these vascular growths, as they affect the eyelids, the nose, the cheeks and the lips.

"*Nœvi of the Lips* require different treatment, according as they occupy the margin or have involved the whole substance of these parts. When seated at the margin, as projecting and somewhat pendulous growths, they may very readily be removed by a double or quadruple ligature, according to their size; but when they involve the whole thickness of the lip, such measures as these are not available. If deeply invading the substance of the lip, an operation similar to that for the removal of a cancroid growth might be practiced, the whole substance of the lip cut through widely on either side of the disease, and the incisions brought together with hare-lip pins. Such an operation is only practicable when the disease, though deeply seated, does not spread to any great extent laterally. When it does, the whole of one-half of the lip, for instance, being involved, the use of the knife, especially in young infants, would be too hazardous, on account of the probability of serious hemorrhage; and other means must be had recourse to. I have tried the use of setons, and of injections with the perchloride of iron; but not with any advantage. When the whole substance of the lip is involved, inclusion and strangulation of the morbid mass by means of the ligature is seldom available; the amount of sloughing being very great, and the child, absorbing the putrescent matters from the sloughy mass which results, incurring the danger of being poisoned from this source. In an infant with a very large nævus, including one-half of the lip, and which I ligatured at the hospital some years ago, death appeared to result from this cause.

"One of the most formidable, and in its results the most satisfactory case of nævus of the lip that I have ever had to do with, was sent to me about three years and a half ago, by Dr. Budd, of Barnstaple. The patient, a little girl five months old, was noticed at birth to have a red streak on the right side of the upper lip; this rapidly developed into a large tumid purple nævus, which, when the case came under my observation, was about the size of a large walnut, involving the whole of the structures of the lip, from the cutaneous to the mucous surfaces; it was of a deep mulberry color, and extended from the median line of the lip to the angle of the mouth. The integuments covering this growth were exceedingly thin, and the tumor itself in the highest degree vascular and active. What course was to be adopted in eradicating such a tumor as this? Excision appeared to be out of the question, on account of the extent of tissue involved, the early age of the child, and the probability of profuse and possibly fatal hemorrhage. The ligature, from the experience I had had in a similar case, presented little to recommend it. Injections with the perchloride of iron, and the introduction of setons were successively tried, but neither of these means produced any effect on the tumor, which commenced to extend upwards into the nostril. I accordingly determined on using caustics. Nitric acid was first employed; but as this did not produce sufficiently deep impression on the growth, I had recourse to the potassa cum calce. By means of this powerful escharotic, the tumor was gradually removed; the hemorrhage which occasionally resulted being restrained by pressure. Notwithstanding the amount of tissue destroyed, the resulting cicatrix was small, resembling that of a badly united hare-lip. I advised the parents to leave this for some years, and then, if it had not materially improved, proposed to excise it, and bring the opposite sound edges together by a hare-lip operation.

" A few weeks ago, the child was brought to me again, and I was much struck by the wonderful improvement that had taken place during the three years that had elapsed since the removal of the nævus. The lip is smooth, the cicatrix in a great degree worn out, and comparatively little disfigurement is left in the countenance of an exceedingly pretty and engaging child. Finding, however, that the lip was still drawn or tucked in by a very dense band of cicatrical tissue, which caused a depression of the ala on that side, I divided this, and the result has been of the most satisfactory character."—*Ibid.*

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" *Rapidity of Thought, or Nervous Action.* By M. ULE, Revue Suisse.—The method of transforming the valuation of time into space by the rapid revolution of a cylinder, proposed by Mr. Fizeau, has been applied to the measurement of the rapidity of nervous impulse. Such a cylinder, rotating 1,000 times a second, and divided into 360 degrees, may measure 1-360,000th part of a second; or rotating 1,500 times a second, 1-540,000th part of a second; and even this may be subdivided by a microscope, so as to obtain the 10-millionth, or perhaps the 100-millionth part of a second. By this extreme minuteness of subdivision of time, it is not difficult to measure even the rapidity of a nervous impulse. If an electric shock be given to the arm, it produces a sensation and a contraction of the muscles. Hence, by noting the interval of time between the shock and the contraction, the time occupied by the transmission of the sensation and the action of the brain, however quick, will be determined. By trying the experiment with different parts of the body, sensible differences have been observed, the shock applied to the thumb being one-thirtieth of a second behind that applied to the face; and this difference pertains to the transmission, and not to the action of the brain, and hence enables us to eliminate the latter in the experiments. In this way it has been found by M. Helmholtz, by whom these experiments have been made with the most care:—1. That sensations are transmitted to the brain at a rapidity of about 180 *feet per second*, or at one-fifth the rate of sound; and this is nearly the same in all individuals. 2. The brain requires *one-tenth of a second* to transmit its orders to the nerves which preside over voluntary motion; but this amount varies much in different individuals, and in the same individual at different times, according to the disposition or the condition at the time, and is more regular the more sustained the attention. 3. The time required to transmit an order to the muscles by the motor nerves is nearly the same as that required by the nerves of sensation to pass a sensation; moreover, it passes nearly one-hundredth of a second before the muscles are put in motion. 4. The whole operation requires one-and-a-quarter to two-tenths of a second. Consequently, when we speak of an active, ardent mind, or of one that is slow, cold or apathetic, it is not a mere figure of rhetoric."—*Edin. New Philosophical Journal, October*, 1858.—*Journal Franklin Institute.*

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"*Extract from the Records of the Boston Society for Medical Improvement.* By F. E. Oliver, M. D., *Secretary.—Spontaneous Ptyalism.*—Case mentioned by Dr. Minot.

"The patient was a woman, aged 66, who was salivated twenty years ago, but whether in consequence of taking medicine or no, she is ignorant. About two and a half years ago, after taking an empirical preparation called "Kennedy's Remedy," she was again salivated. At this time she entered the Massachusetts General Hospital for an ulcer on the foot, which had existed for nearly forty years. The salivation ceased after the patient had been taking the iodide of potassium. About three months ago, she was suddenly attacked with copious ptyalism, without any apparent cause. She had been taking no medicine of any kind. The salivation lasted about six weeks, during which time the patient lost much flesh, and her sleep was much interrupted by the constant necessity of spitting. The amount of saliva excreted varied from half a pint to a pint daily, and it had the ordinary appearance. No treatment was adopted for the first two weeks; after that she had tonics and astringent gargles, and finally the extract of hyoscyamus in five-grain doses, the iodide of potassium in the same doses, and ioduretted gargles. The recovery seemed due, in a considerable measure, to the iodide of potassium and the iodine gargles, and has remained perfect. The patient is now in excellent health.

"Dr. Lyman also mentioned the following case:

"Miss B., æt. 28, was seen Dec. 16th, for a nervous affection of the throat. A plaster of belladonna was directed to the back of the neck, and, internally, ten grains of hydriodate of potash, three times a day.

On the 23d, she reported that for some days she had been much better. The evening previous she was at a party and eat supper, &c., and the dysphagia had become very severe again. Said that three days before, salivation set in. There was no fœtor, soreness of the gums, or coated tongue. Two years ago, she contracted Panama fever, on her return from the Sandwich Islands, for which she took 'a great deal of calomel.' Since that time she has taken nothing of the kind, with the exception of 'two blue pills,' a year ago.

"She was directed to reduce the hydriodate to five grains, three times daily, and continue the belladonna plaster during the day as before.

"On the 30th, reported that the salivation was worse than at any previous time. Some days she had omitted the dydriodate, when the salivation would immediately diminish. The dyspnœa and dysphagia had entirely ceased. She was directed to omit the remedy until the salivation should cease, and then take valerianate of ammonia.

"January 3d, reported that the salivation ceased the night after discontinuing the iodide, and has not returned, the mouth being perfectly well.

"If the salivation in this case was due to chemical combination with the mercury taken five years previously, in accordance with the theory of M. Melsens, Malherbe, Parke and Sieveking, how happens it that there was neither soreness of the gums nor mercurial fœtor?

"Dr. Bowditch alluded to a case of salivation that occurred at the Hospital, which was caused by the hydriodate of potash.

"Dr. Stedman said, in answer to Dr. Clark, that he did not remember a case of salivation attributable to this remedy. In a few cases, diarrhœa, and, in one instance, dysentery had followed its use. In one case, he gave it to the amount of ninety grains without any perceptible effect.

"Dr. Jackson alluded to a case that occurred a few years since, in which the hydriodate of potash had a marked effect in checking salivation. It was given in moderate doses.

"Dr. C. D. Homans mentioned a case of ptyalism that came on suddenly during typhoid fever, without apparent cause. The only medicines taken at the time were sweet spirits of nitre and sulphuric acid. It was arrested by the chlorate of potash.—*Boston Medical and Surgical Journal.*

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"*A case of Congenital Deformity.—Messrs. Editors.*—The following case of congenital deformity recently fell under my observation, and may be of interest to your readers.

"I was called, October 31, 1858, to attend Mrs. J. A., in confinement with her third child. She was delivered of a still-born male child after a brief labor, and which had talipes varus of both feet; curvature of the spine; a total absence of anything resembling a neck; the head resting directly upon the body, and considerably drawn back, so as to make the face look almost directly upward; and what was still more singular, it had a full set of teeth in the upper jaw as far back as the first molar tooth, which was much larger, in proportion, than the other teeth, standing out very prominently, and as large as the same tooth in a child ten years of age. They were all of a yellowish white color, and of a cartilaginous character. The mouth was very large, the corners drawn up, giving it a horrid sardonic grin; displaying all the teeth, which seemed to protrude, the upper jaw being more prominent than the lower.—*Ibid.*

"S. MITCHELL, M. D."

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*Extracts from Notices of French Medicine and Surgery.*—By THEOPHILUS MACK, M. D.—*Buffalo Medical and Surgical Journal.*—"M. Bosel obtained a cure of salivary fistula, by obliterating the duct of steno.

"M. Robert has drawn attention to the accidents resulting from the development of the wisdom teeth; ostitis and periostitis of the maxilla, neurosis, inflammation of the adjacent soft parts, migratory abscesses in the throat and neck, ulcerations of the gums and abscesses, below the chin, &c.

*Chirurgical Society.*—Illustrative of the reproduction of bone by the periosteum, M. Larrey read two observations; one of necrosis of six inches of the femur, (shaft,) enclosed in bone of new formation, which, from the report of the case, appears to have been secreted by the periosteum. Two applications of the trephine, and the use of the gouge, enabled the operator to extract, in fragments, a sequestrum of the length mentioned. A second observation was that of a ball penetrating to the medullary canal of the tibia at its upper end, and after remaining four months, being removed by the trepan, at the lower end of the bone, about two inches above the malleolus internus. Here the ball had destroyed the internal wall of the tibia, the vessels and nerves of the medulla, in fact, all the elements of nutrition of the tibia. Hence vitality could not have been conserved to this portion of the bone, except through the means of the periosteum.

"At the Society of Practical Medicine, the principle that no age should be fixed for weaning infants, but the progress of dentition should alone be our guide, was maintained.

"At the Chirurgical Society, M. Desomaux sustained the propriety of operating for hare-lip upon newly-born infants, and advanced two successful cases to sustain his position."—*Atlanta Med. and Surg. Jour.*

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*On Electro-Galvanic Anæsthesia.* By F. A. SASS.—"With respect to the use of the electro-galvanic current in tooth extraction, I cannot speak too highly in its praise, except that it is not applicable in all cases. I hear frequently such exclamations from my patients as 'marvelous,' 'wonderful,' and so forth. On one occasion, after extracting a second lower molar for a gentleman, he remained with his mouth wide open, and on my asking him what he thought of it, he said, 'Well, if it is out, it is astonishing.' A few days ago I extracted ten teeth, including stumps, for a lady, and as she herself wished to test the efficacy of electricity in relieving pain, I applied the current only in alternate extraction, and her account of it was most satisfactory. It is interesting, because it was a case of the extraction of similar teeth, with and without electricity, from the same patient, on the same occasion. For instance, I extracted a bicuspid stump on one side without electricity, and I then selected a similar stump on the other, and extracted it, applying the current. My patient said in every case that the electricity so mitigated the pain as to make it quite tolerable. One gentleman, who had always previously inhaled chloroform, said that he much preferred the electricity. I could instance very many cases of this sort, and I can only attribute the want of success experienced by some dentists to their not giving sufficient attention to the minutiæ, or not accurately adjusting the current to the capacity of their patient. From conversations I have had with several of my professional brethren, I believe the current employed is often much stronger than is necessary.

"I have also been using the electrical current for some considerable time in allaying violent toothache, not by applying it to the tooth, as mentioned by Dr. Charles Taylor, but by placing a pole of the battery in each hand of the patient, causing a current to pass through the body, slightly stronger than that used for the extraction of teeth. It immediately relieves the pain, which is, however, unfortunately liable to recur, if means be not taken to prevent it."—*London Lancet.*

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"*Treatment of Epithelial Cancer of the Tongue.* By J. VINING PORTER, Esq., M.R.C.S., *Isle of Wight.*—Wm. P——, aged sixty, has suffered for the last three years with epithelial cancer of the tongue. His brother died with cancer of the tongue, and his father died of a tumor in the neck. The treatment has been to let masticatories gradually dissolve as near to the part as possible, composed of equal parts of powdered oak-bark and alum, made up with mucilage, and divided into about five grains each. The cancerous disease has not appeared to progress. The general health is quite as good or better than at any time of his life; and if I cannot cure, at any rate I seem to have held the disease in check, and hope still to do so."—*Ibid.*

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*Mesmeric Anæsthesia.*—"Our present knowledge of mesmerism as an anæsthetic agent may be thus summed up:—1. That it is capable of inducing complete anæsthesia. 2. That, as a rule, liable, however, to strange exceptions, its effectiveness is in proportion to the superior strength and vigor of the nervous system of the mesmerizer relatively to that of the person mesmerized. 3. That while generally capable of inducing anæsthesia in Orientals, it is less frequently capable of inducing the like state in Europeans. 4. That the practitioner of mesmeric anæsthesia suffers extreme exhaustion from the process, and cannot continue it long without seriously impairing his own health. 5. That an inconveniently long time is often needed in order to induce anæsthesia; and, 6. That when patients once become amenable to mesmeric influence, they are liable to become 'inoculated' (to use Dr. Esdaile's words) with a nervous disease, 'acting spontaneously, and obeying natural laws we do not understand."—*Westminster Review.*

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*Order of Anæsthesia.*—"Now, it has been found by experiments, that under the action of ether or chloroform, the nervous centres lose their powers in regular succession. First, the cerebral lobes lose theirs, and then consciousness, with the intellectual and emotional faculties is arrested; next, the cerebellum loses its power of regulating locomotion; next, the spinal cord becomes incapable of sensation and of originating motion, but the medulla oblongata, which presides over respiration, still retains its functions. Next, the medulla oblongata is affected; when this occurs, breathing ceases, and death is near; but even yet the ganglionic nerves of the sympathetic system still perform their functions, and the heart and intestines continue to move for a time often with vigor. Thus, when anæsthetic vapors are inhaled, the different nervous centres lose their powers in the *inverse* order of their essentialness to life; the function of the sympathetic nerve ceasing last of all, and the heart and womb retaining for a time, therefore, their contractile power during states of anæsthesia so deep, as not only to involve the annihilation of consciousness and sensibility, but also of respiration."—*Ibid.*

"*Fœtid Breath.* By J. PIDDUCK, M. D.—The subject of fœtid breath and its kindred annoyance, fœtid perspiration, particularly that of the feet, is of too much importance to the happiness of the sufferers from this cause, and their friends, to be passed over lightly. I am induced to send you the result of my observations upon it.

"A fœtor of the breath and of the feet alternates the one with the other. The arrest of fœtor of the feet is followed by that of the breath, and *vice versa.*

"A fœtor of the breath proceeds from the sebaceous follicles of the tonsils; that of the feet, from the sebaceous follicles between the toes, also in the armpits and illia. This in some cases is so penetrating, so offensive, as to cause the subject of it to be shunned even by the members of his own family. Several cases of this kind have been successfully treated as follows:—

"1. To avoid all strong-scented articles of diet, such as cheese, hashes, meat-puddings and pies, smoked meats and smoked fish, fried meats and fried fish, and the outside brown fat of roast or boiled meats.

To promote the sebaceous secretion, the vapor-bath has been prescribed; and, as an alterative, the decoction of polygala senega-root."—*London Lancet.*

"PATENT CLAIMS.—*Adjustable Dental Swages.*—E. H. DANFORTH, Jamestown, New York.—Claim.—Forming the labial and the lingual curve of Dental plates for the inferior maxillary alveolar ridge, by swaging it into form with the compound die and malleable plates in the curve of the plate."—*Journal of the Franklin Institute.*

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